



Towson State University  
Graduate Catalog  
1987 - 1988



## ACCREDITATION

Towson State University is accredited by the Middle States Association of Colleges and Secondary Schools and the National Council for the Accreditation of Teacher Education. The University is a member of the Council of Graduate Schools in the United States and the Northeastern Association of Graduate Schools. It is approved by the Maryland State Board for Higher Education and the American Association of University Women.

# Towson State University Graduate Catalog 1987 - 1988

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## ACADEMIC CALENDAR 1987 - 1988

### 1987 FALL SEMESTER

Aug.	26	Wed.	*Registration Administration Building
	27	Thur.	See registration time schedule in fall schedule.
Sept.	8	Tues.	Classes begin.
Oct.	1	Thur.	Final date to apply for masters degree examinations. Final date to submit graduation application for January graduation.
Nov.	7	Sat.	Masters degree examinations.
Dec.	22	Tues.	Last day of examinations and semester.
Jan.	4	Sun.	Commencement

### 1988 SPRING SEMESTER

Jan.	3	Tues.	*Registration See registration time schedule in spring schedule.
Feb.	1	Mon.	Classes begin.

Feb.	1	Mon.	Final date to apply for masters degree examinations. Final date to submit graduation application for May graduation.
March	21-25		Mid-semester break, no classes.
March	28	Mon.	Classes resume.
April	2	Sat.	Masters degree examinations.
May	20	Fri.	Last day of examinations and semester.
May	22	Sun.	Commencement.

### 1988 SUMMER SESSIONS

June	1	Wed.	Final date to apply for masters degree examinations. Final date to submit graduation application for Sept. graduation.
July	9	Sat.	Masters degree examinations.

\*Registration dates are subject to change. Please check the appropriate Schedule Bulletin to ascertain correct dates.

TOWSON STATE UNIVERSITY  
Towson, Maryland 21204

# THE UNIVERSITY

## HISTORY

The history of Towson State University, the oldest and largest of Maryland's public colleges and universities, began in 1865 when the General Assembly of Maryland established a statewide public school system. The first state teacher training institution was the Maryland State Normal School, which in 1935 became the State Teachers College at Towson. Formally opened in Baltimore on January 15, 1866, the Normal School was for many years the only institution devoted exclusively to the preparation of teachers for the public schools of Maryland. The school occupied three different locations in the city of Baltimore before moving to its present suburban location in 1915.

In 1946 the arts and sciences program was introduced at Towson. Beginning as a two-year transfer program, it was extended to a four-year degree-granting program in 1960.

In 1963 the college was authorized by action of the legislature to expand its offerings in the arts and sciences while maintaining a strong program in teacher education, and to change its name from State Teachers College at Towson to Towson State College. University status was granted in 1976. Graduate education began in 1958. There are now twenty graduate degree and certificate programs.

## PRIVACY RIGHTS OF PARENTS AND STUDENTS

Towson State University is in compliance with Section 513 (protection of the rights and privacy of parents and students) and Section 514 (protection of pupil rights) of Title V—Education Administration of the Education Amendments of 1974.

## NON-DISCRIMINATION IN EDUCATION AND EMPLOYMENT

Towson State University is in compliance with Titles VI and VII of the Civil Rights Act of 1964, the Equal Pay Act of 1963, Title IX of the Education Amendments of 1972, Titles VII and VIII of the Public Health Service Act, Section 504 of the Rehabilitation Act of 1973, Section 303 of the Age Discrimination Act of 1975, Executive Order 11246/11375 and Article 64A (The Governor's Code of Fair Practices). In accordance with these laws, the university does not discriminate against any individual for reasons of race, color, religion, national origin, sex, age, political affiliation, marital status, or condition of handicap in the admission of students, educational programs and activities, hiring of faculty and staff, or any terms and conditions of employment. The university is also in compliance with federal regulations regarding prohibition of discrimination on the basis of veteran status. Information on these laws and copies of the Affirmative Action Plan of Towson State University are available from the Affirmative Action Officer.

## THE BOARD OF TRUSTEES OF THE STATE UNIVERSITIES AND COLLEGES

The university is governed by a fifteen-member board of trustees—fourteen members appointed by the governor for five-year terms and one student member appointed by the governor for a one-year term. The board also governs five other state colleges and universities.

## THE CAMPUS AND FACILITIES

The university is situated on a campus of over 326 acres located one and a half miles beyond the northern border of the city of Baltimore. Within an eight-mile radius of the campus are all the cultural advantages of the city of Baltimore—The Peabody Conservatory of Music and Library, the Enoch Pratt Free Library, the Walters Art Gallery, the Baltimore Museum of Art, Meyerhoff Symphony Hall, the Lyric Theatre, Center Stage and many other cultural centers necessary for a well-rounded university experience.

Campus buildings and facilities give excellent support to the various

university programs. The inside back cover of this catalog provides a pictorial guide of the campus.

## STUDENT SERVICES

### Career Placement Center

This office provides graduate students with a credentials service, job listings, career literature, seminars on resume writing, job search, interviewing and advising by appointment.

### Child Care

The Lida Lee Tall Day Care Center is the child care facility on campus. It is open from 7:30 a.m. until 10:00 p.m. on weekdays during each semester. Fees are on a sliding scale based on individual financial circumstances.

### Counseling

The Glen Esk Counseling Center staff provides the services of trained counselors to students in need of assistance in making personal, education and career decisions. In addition to individual counseling, the center offers a program of group counseling and limited testing facilities.

### Health Center

The Anita Dowell Health Center is open weekdays from 7 a.m. to 8 p.m. and thereafter for emergencies. It is open from 7 a.m. to 3 p.m. Saturdays and Sundays. First aid is administered and appropriate referrals are made. All accidents on campus should be reported to the health center immediately. A mental health service is available for students seeking psychiatric help.

### Library

Graduate students are issued university identification cards for borrowing privileges. Books and materials from other libraries in the area may be requested on inter-library loan.

### LIBRARY HOURS

Mon.-Thurs.	8:00 a.m. to 10:00 p.m.
Fri.	8:00 a.m. to 5:00 p.m.
Sat.	9:00 a.m. to 5:00 p.m.
Sun.	1:00 p.m. to 9:00 p.m.

The faculty reserve room is open Sunday through Thursday until midnight.

## OFFICE OF VETERANS AFFAIRS

The Office of Veterans Affairs (OVA) provides coordination between veteran/dependent students and the Baltimore Regional Office of the Veterans Administration. The OVA establishes procedures and prepares forms and correspondence that enable eligible students to receive their educational benefits. Additionally, it monitors class attendance and evaluates academic progress to ensure that satisfactory progress of those receiving benefits is maintained. It also supervises the employment of VA work-study students.

Students taking courses at another institution concurrently with courses at Towson State may be certified for both institutions by the Towson OVA.

The normal period for processing an enrollment certification is six weeks. Certification is not automatic. The proper VA forms must be completed for each semester. It is the responsibility of the individual to apply for educational benefits at the OVA and to notify the OVA when entitlement to benefits changes, or when a change from a degree program or to the number of credits being pursued occurs.

The purpose of veterans benefits at Towson State University is to permit those eligible for the benefits to obtain degrees. It is imperative, therefore, that each veteran be either a degree candidate or in a VA-approved program.

The OVA, located in the Administration Building, is open daily from 8:30 a.m. to 4:30 p.m. and may be visited without an appointment.

## PARKING

The operation and possession of motor vehicles in the Towson community and the use of campus parking facilities are privileges extended to university faculty, staff, and students. These privileges carry with them the obligation to observe all regulations.

The map on the cover of this catalog designates the parking areas for faculty, staff, and students. Student parking permits cost \$21.00 (see registration and fees) and may be obtained when other registration fees are paid.

## RESIDENCE ON- AND OFF-CAMPUS

Traditional residence hall facilities are available on campus for graduate students if space is available. The director of residence also provides listings of off-campus accommodations. Arrangements for conferences with the director can be made by calling (301) 321-2516.

## UNIVERSITY UNION

The University Union, in cooperation with the academic departments, provides a program of activities in which graduate students are encouraged to participate. These activities are regularly publicized. Within the University Union are the following:

Post Office, Ground Floor	321-2260
Recreation Center, Ground Floor	321-2782
University Store, Ground Floor	321-2323
University Ticket Office, Ground Floor	321-2244

## GRADUATE ASSISTANTSHIPS AND FINANCIAL AID

### ASSISTANTSHIPS

The Graduate School of Towson State University offers a limited number of graduate assistantships each year to qualified students recommended by the appropriate department. The stipends for the graduate assistantships are \$2,500 and \$3,000 plus remission of tuition and fees. Graduate assistants are required to provide appropriate work each week during the semesters in which assistantships are in effect. Application forms for assistantships may be obtained from the graduate office. Detailed information may be obtained by writing to the dean of the Graduate School.

### FINANCIAL AID PROGRAMS

Financial aid is available to graduate students who have been admitted as degree candidates, are making satisfactory academic progress, intend to register at least half time (six credits), and who fulfill the eligibility requirements of the program for which they apply.

**Campus-based programs:** Perkins/National Direct Student Loan and College Work Study.

The University receives a limited amount of money each year to fund students from these programs. The programs are "need based" and to receive consideration, a student must file the University's Supplemental Form A and a College Scholarship Service Financial Aid Form (FAF). The University's Financial Aid Application deadline date is March 15th for the following academic year. Students may apply as early as January 1st. Additional information is available in the Towson State University catalog under Financial Aid. More detailed information on Financial Aid programs and eligibility requirements is available on request from the Financial Aid Office.

#### The Perkins/National Direct Student Loan Program

If the student is eligible and funds are available, a student may borrow from this program at 5%. No interest is due as long as the student registers at least half time. When a student drops out, drops below half time or graduates, the grace period commences. Interest begins to accrue at the end of the grace period.

#### College Work Study (CWS)

If the student is eligible and funds are available, CWS allows a student to work on or off campus. All College Work Study jobs must be cleared through the Financial Aid Office. A CWS eligibility

is the maximum amount that a student may earn and receive funding from the program. It is the responsibility of the student to find a CWS job and to monitor earnings so as to avoid exceeding CWS eligibility.

#### Guaranteed Student Loan Program (GSL)

This program is available in most states from commercial lenders such as a bank, credit union or savings and loan association. The Maryland program is called The Maryland Higher Education Loan Program. For new borrowers the interest rate is 8%. Students who have already borrowed at 7% or 9% and whose loan has not been paid in full will continue borrowing at the same 7% or 9% interest rate. A graduate student may borrow up to a maximum of \$7,500 per year to an aggregate total of \$54,750 including any loans made at the undergraduate level. A GSL application and College Scholarship Service Financial Aid Form (FAF) must be completed and submitted to the Financial Aid Office.

#### Supplemental Student Loan (SLS) Program

This program is available to graduate students from some of the same commercial lenders that process Guaranteed Student Loans. A SLS application must be completed and submitted to the Financial Aid Office. A graduate student may borrow a maximum of \$4,000 per year to an aggregate total of \$20,000 including any loans made at the undergraduate level. The interest rate is currently 10.03% per year and begins to accrue on the day the loan is disbursed. Students should apply for SLS loans only after they have applied for GSL and other forms of financial aid.

## DEAN'S FELLOWSHIPS

Dean's fellowships are awarded on the basis of merit to both first-time and returning graduate students. The amounts of fellowships are variable. Generally, they are used toward payment of tuition and in some cases other items enumerated on the financial statement. Fellowship recipients must register for at least three semester hours per semester during the fellowship period. Students who hold a master's degree are ineligible.

Inquiries should be addressed to the Dean of the Graduate School.



# STUDENT RESPONSIBILITY

It is the responsibility of the student to become knowledgeable of, and to observe, all university policies, regulations and procedures. In no case will a waiver of requirements or an exception be granted because a student pleads ignorance of policy or regulation or asserts that he/she was not informed of a specific requirement by an advisor or other university authority. The student should become especially familiar with: (1) the regulations in this catalog, (2) the section presenting requirements for the degree sought, and (3) the offerings and requirements of the student's major department.

The graduate school policy in effect at the time the student is admitted is that under which the student operates through the term of his or her study toward completion of degree requirements (subject to the disclaimer in the next paragraph). The admission date is determined by the date on the student's letter of admission.

While the provisions of this catalog will ordinarily be applied as stated, Towson State University reserves the right to change any provision listed in this catalog, including but not limited to academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information on changes will be available from advisors and in the dean's office. It is especially important to note that it is the individual student's responsibility to keep apprised of current graduation requirements for his/her particular degree program.

## THE GRADUATE SCHOOL

The Graduate School prepares qualified students for career advancement, leadership positions and further graduate study. The university serves the community, state and region by making graduate degree programs available to part-time students who can attend classes only in the evening as well as to full-time students. Numerous students also take advantage of graduate offerings without enrolling in degree programs.

The graduate facility, which includes many widely recognized scholars and practitioners, is committed to excellence in teaching in a scholarly environment. The faculty, classroom, library, clinical, laboratory and studio assets of the graduate programs are supplemented by a community rich in cultural, artistic, social, technological and scientific resources.

Master's degrees are awarded in education, arts and sciences, and fine arts. The university is proud of the many alumni of the Graduate School who fulfill with distinction the requirements of responsible careers.

### GRADUATE STUDIES COMMITTEE

The Graduate Studies Committee, a committee of the University Senate, determines policy for graduate programs. Matters of graduate curriculum and standards are the responsibility of the committee. The Graduate Studies Committee also hears appeals related to academic matters by graduate students. Student appeals to the committee should be directed to the Dean of the Graduate School.

The voting membership is comprised of six members of the faculty and two graduate students. The Dean of the Graduate School, two graduate coordinators and the Director of the Library are ex-officio members. The chairperson and secretary of the committee are elected from its membership.

### GRADUATE SCHOOL ADMINISTRATION

The officers of the Graduate School are the Dean, Associate Dean, and Director of Graduate Admissions and Records. It is their responsibility to administer the affairs of the Graduate School and to implement the policies of the Graduate Studies Committee.

### GRADUATE SCHOOL OFFICE HOURS

The Graduate School office is open Monday through Thursday from 8:30 a.m. to 7:00 p.m. and Friday from 8:30 a.m. to 5:00 p.m. (except for scheduled holidays). During registration, the office is open in the evening according to the registration schedule. Students may arrange for appointments with the Graduate School staff at other hours. The Graduate School telephone number is 301-321-2500. For current information from the Graduate School, please call 301-321-4100 for a record message.

### CORRESPONDENCE

Correspondence concerning graduate study should be addressed to:

Dean of the Graduate School  
Towson State University  
Towson, Maryland 21204

### MAINTENANCE AND DISPOSITION OF RECORDS

Students who do not register within one year of admission must submit new admission credentials and application data if they subsequently take courses.

All student records, including academic records from other institutions, are part of the official file, and are retained subject to stated policies. They cannot be returned or duplicated for any purpose. Students should obtain their own copies of official credentials for advisory purposes and other personal uses.

### CONFIDENTIALITY OF RECORDS

Towson State University respects the confidential relationship between the university and its students by preserving, to the maximum extent possible, the privacy of all records relating to its students. Records are kept only on matters relevant to the academic admission process and to the student's progress toward a degree. The records will not be disclosed except upon student's written request or with his or her written consent, under legal compulsion, or in carefully circumscribed instances based on clearly-defined policies of Towson State University.



# ACADEMIC INFORMATION

## APPLICATION

### Application to the Graduate School

Admission to the Graduate School of Towson State University is granted to all applicants whose academic and personal qualifications give promise of success in graduate study. The applicant must hold a baccalaureate degree from a regionally accredited college or university, or from a Maryland college or university that is approved by the Maryland State Board of Higher Education.

Students seeking admission to a graduate degree program, or to take courses for graduate credit, must apply for admission to graduate studies prior to first enrollment and have two official transcripts of all college work sent to the Graduate School. Transcripts must be sent directly from the institutions attended to the Graduate School of Towson State University. Some programs require such additional application materials as letters of recommendation, the Graduate Record Examination, general and/or subject tests, the Millers Analogies, and portfolios of work. Details of the required materials are included with descriptions of the programs elsewhere in this catalog.

### International Students

Application for admission should be made at least six months prior to the date of anticipated enrollment. Admission credentials must include: (1) an application for admission; (2) two official or certified true copies of all grade reports, diplomas, and academic records attesting to the completion of undergraduate work; (3) a letter from the University and reasons for attending this university; (4) a financial summary stating amounts and sources of support for the duration of study; and (5) verification of English competency.

If English is not the first language, verification is certified by achievement of a minimum of 550 on the Test of English as a Second Language (TOEFL). The student must also take the English competency test administered by the Towson State University English Language Center, either prior to, or during the first semester of enrollment. Information about the TOEFL administration dates and registration procedure may be obtained from TOEFL, Educational Testing Service, Princeton, New Jersey 08540, USA. Towson State University is a test site for the TOEFL, and information can be obtained from the Testing Office at 301-321-2691.

## ADMISSION

### Full Admission

An applicant for admission to a degree program can meet full admission requirements by holding (1) a master's degree or doctorate from a regionally accredited college or university, or (2) a bachelor's degree with a grade point average of 3.00 (on a 4-point scale) and by meeting all additional admission requirements of the program. The grade average requirements may be satisfied by a 3.00 cumulative average for the most recent 60 credits on the applicant's baccalaureate record. Courses taken beyond the baccalaureate degree may be included in the undergraduate grade point average if they are at least upper division undergraduate work. Courses used for admission credentials cannot be applied toward a master's degree.

### Conditional Admission

Conditional admission may be granted to applicants whose academic achievement does not meet the standards required for full admission. See individual program description for specific requirements. Students admitted to a degree program on a conditional basis must satisfy requirements for full admission by completing nine semester hours of graduate credit courses at the 500-600 levels. The courses may be specified by the coordinator, or may be taken from a list

of approved courses. The courses must be completed with a minimum 3.00 average within two years of admission.

The minimum undergraduate grade average for conditional admission may be waived for an applicant whose undergraduate degree was obtained ten or more years earlier, and who can document a minimum of five years of successful working experience in a field relevant to the applicant's program. The candidate's application to the Graduate School must be supported in writing by the program coordinator. Candidates must meet all other entrance requirements for the program.

### Non-Degree Students

Students who do not wish to pursue a degree are permitted to register for courses through the 600 level. Those who do not meet standards required for admission to a program may take courses, through the 600 level, as special non-degree students. Non-degree students who wish to take courses above the 600 level should request a transcript evaluation. Such students must meet the same grade point average requirements as fully admitted graduate students. Requests should be directed to the Director of Graduate Admission and Records.

### Admission Prior to Receiving Baccalaureate Degree

Admission may be granted to seniors in their final semester. Undergraduate work through the first semester of the senior year is evaluated. Admission standing is subject to cancellation or change if the admission credentials remain incomplete or do not meet the requirements for admission.

### Graduate Work by Seniors at Towson State University

Seniors at Towson State University may register for a maximum of six credit hours in the Graduate School if they meet the following criteria: (1) the graduate courses must be in excess of the credits required for the bachelor's degree; (2) a written request from the student specifying the graduate courses is submitted in advance of registration and is approved by the appropriate graduate coordinator; (3) a 3.00 or higher cumulative average. Payment for the courses is separate from that of undergraduate courses taken in the same semester and is at the graduate tuition rate. The courses may be transferred later to the student's graduate record.

## ACADEMIC INTEGRITY

Students are expected to maintain a high standard of academic integrity. Inappropriate classroom conduct, cheating and plagiarism may result in disciplinary action by the Graduate Studies Committee.

Instructors are responsible for maintaining the academic integrity of courses and will initially handle problems of classroom conduct, cheating and plagiarism in a discussion with the student. Unauthorized assistance in preparing materials submitted as original work by the student constitutes a violation of academic integrity and results in action being taken. The instructor may lower the student's grade or give a failing grade for the course. If the instructor decides that further action is warranted, he or she will notify the student that a formal charge will be made to the Graduate Studies Committee. A written report of the incident will be filed with the committee.

The committee will review the facts of the case and make a decision regarding the status of the student in the Graduate School. The committee will either absolve the student of the violation or impose a penalty. The penalty may be, but is not limited to, the following: (1) agreement that the lowered course grade is sufficient disciplinary action; (2) mandatory suspension from taking courses for graduate credit for a designated period of time; or (3) dismissal from the Graduate School.

## JUDICIAL AFFAIRS

The Office of Judicial Affairs administers the university judicial system. When a student is alleged to have violated the Student Code of Conduct or the Residence/Board Contract, this office administers

the process so that each side of a case is heard. The office also serves as a resource to faculty and administrators.

When there is a dispute about a grade between a student and faculty member, the student follows the established route of authority. He or she must try to settle the matter with the instructor. If unsuccessful, the matter is to be discussed first with the department chairperson, and then the school or college dean. If still not satisfied, the student should contact the Judicial Affairs Office for referral to the appropriate committee.

## ADVISING

At the time of admission to a graduate program, the student is assigned a faculty advisor by the department responsible for the student's program of study. Registration for a newly-admitted student begins with a visit to the academic advisor, who will assist the student with information about specific courses and degree requirements, and the development of a program of study. The student should consult with the advisor before registration each semester.

## Program of Study

Each degree student must follow a program approved by the graduate coordinator, and which conforms to Graduate School Policy. Courses taken prior to planning the program of study can be included only if approved by the graduate coordinator. The advisor's approval is needed for any revisions. The program of study may include no more than nine credits at the 500 level.

## REGISTRATION

### Enrollment Requirement after Application

Applicants for admission must indicate the date when they first plan to enroll. Records of students who do not enroll for courses in the stated semester will be held for one registration period beyond that semester. If enrollment in courses does not occur, or the student does not inform the Graduate School of another starting date, the applicant's records will be removed from the files and the student must apply again for future enrollment. One year is permitted to initiate course work after admission to a degree program. If the applicant does not enroll in courses by that time the admission process must begin anew.

An applicant enrolled for courses is withdrawn from those courses if the transcript validating the baccalaureate degree is not received in the graduate office by the required date. No refund is granted, and the student's application is removed from Graduate School files. A new application and fee must be submitted if the student wishes to take courses for graduate credit at a later time.

### Continuous Enrollment

Students are expected to register for courses on a regular basis. Should there be a lapse of two academic years during which courses are not taken for graduate credit, the student's records are removed from the graduate office files. If the student desires to take graduate courses after this action, he or she must initiate the application process as a new applicant.

### Course Load

A student who registers for nine graduate semester hours is considered a full-time student. One who takes fewer hours is designated a part-time student. The maximum load for full-time students is 12 semester hours.

### Auditing Courses

Students may audit courses that carry graduate credit with the written consent of the instructor. Any graduate student may audit a course through the 600 level. Courses at the 700 level may be audited only by fully admitted students. Audited courses appear on the university record as "AU" and may not be used to repeat a course for which credit has already been earned. Audited courses may not count as part of the credit hour load or be applied toward the master's degree. The regular tuition rate applies to audited courses.

## Candidates for Degrees at Other Institutions

Students who are candidates for a graduate degree at another college or university may take graduate courses at Towson State University. At least two weeks before registration the student must present a letter from the graduate dean of the home institution indicating that he or she is in good standing and that credit earned at Towson State University is acceptable toward his or her degree.

## Course Numbers

Each department has one or more three or four letter code preceding the three digit course classification number. The three digit course number indicates the following with respect to level:

- 100-499 undergraduate courses
- 500-599 upper-division courses offered for graduate credit
- 600-699 graduate courses available to all post-baccalaureate students
- 700-799 graduate courses available only to fully admitted graduate students
- 800-899 graduate research and thesis courses

## Upper Division Courses for Graduate Credit

Up to nine credits of upper division courses (500 level) may be earned toward a master's degree. Courses taken for undergraduate credit may not be repeated at the 500 level for graduate credit. Students should be sure that any course taken at the 500 level does not appear on a previous transcript with the same title.

## Scheduling of Courses

Most graduate courses are offered after 4:00 P.M.

## Grading System

- A - 4 quality points
- B - 3 quality points
- C - 2 quality points
- F - 0 quality points

FX - assigned when the student registers for a course but does not attend, or fails to withdraw officially from the course by the published last date to drop the course.

I (incomplete) - assigned at the end of the semester because of illness or other reason beyond control of the student. Unless the course is completed by the last day of the next regular semester, the grade becomes "F." It is the responsibility of the student to make arrangements to complete course requirements for removal of the "I."

IP (in progress) - assigned for the thesis continuum. When the thesis is completed the "IP" grades are changed to "S" (satisfactory) or "U" (unsatisfactory).

W (withdrawn) - assigned when the student withdraws from the course according to policy.

## Repeating Courses

Courses for which a grade of "F" or "FX" has been awarded may be repeated once. Courses for which a grade of "C" or higher was awarded may not be repeated for graduate degree credit. The grade of "W" does not replace a previously awarded grade. When the course is repeated the student receives the credits for the course (counted once) and the higher of the two grades. Upon completion of the repeated course, a change of grade form must be submitted to the registrar by the student. Courses taken for undergraduate credit may not be repeated for graduate degree credit.

## Withdrawal from a Course

Students dropping a course within the change of schedule period will have no grade recorded. If the course is dropped after the change of schedule period, but within the period to drop with the grade of "W," the "W" grade will be recorded on the permanent record. Students who do not officially drop a course during the established time periods will receive the grade earned in the course (A, B, C, F) as determined by the instructor.

Students with documented medical problems or verified circumstances beyond their control may petition the Graduate Studies Committee, in care of the Dean of the Graduate School, to drop a course after the established deadline and receive a grade of "W." Documentation must accompany the petition. If approved, grades of "W" will be recorded for all unearned grades (FX). Earned grades (A, B, C, F) will not be changed.

#### Transfer Credit

A maximum of six transfer credits may be allowed, but required courses in a program must be completed at Towson State University. Courses must have been taken at a regionally accredited college or university, must be applicable to a graduate degree at the offering institution, and cannot have been utilized as part of an earned degree. Transfer courses must be completed with a grade of "B" or higher, and within the span of seven years allowed for completion of the degree requirements. The seven year limitation cannot be extended for transfer credits. Courses such as workshops, independent study, travel and study, directed reading, inservice courses, and other special format courses are not acceptable for transfer credit.

Students may request permission to take courses at another institution after full admission to Towson State University by submitting a written request to the Dean of the Graduate School prior to taking the course. The course must be approved for the student's program and not be offered by Towson State University during the period of the student's attendance. Transfer credits are not used in computing academic averages. The courses appear on the Towson State University transcript with the titles and credits earned, but without grades earned.

#### Special Format Courses

In all degree programs, a limit of 12 semester hours is placed in workshops, independent study, travel and study, directed reading, or other special format courses.

# DEGREE REQUIREMENTS

#### ELIGIBILITY FOR GRADUATION

Students must complete all program prerequisites, as well as all required and elective master's degree courses with a minimum average of 3.0 in graduate work taken at Towson State University. A minimum average of 3.0 in all courses included on the program of study must be earned. Students must also pass the master's degree written examination, and, if required by the particular program, additional oral and written examinations. If the thesis option is selected, the completed thesis must be delivered to the Graduate School by the last day of classes of the semester for which the student is applying or graduation. The application for graduation must be filed by the published date, and the graduation fee paid.

#### THE MASTER'S DEGREE WRITTEN EXAMINATION

Students must pass a written examination administered by the department. The examination, independent of any course, requires the review and synthesis of appropriate program materials and demonstration of satisfactory writing competence. The examination may be repeated once. The application deadline for the examination is stated in the calendar in this catalog. To be eligible to take the examination the student must have a 3.00 or higher grade point average in all courses taken for graduate credit. Should the student not take the examination or have to repeat it, the application must be submitted again during the semester in which the examination is to be repeated.

#### DEPARTMENTAL EXAMINATIONS

Some programs require oral and/or written examinations in addition to the master's degree written examination.

#### THESIS PROCEDURE

Students intending to write a thesis should obtain the brochure "Writing a Thesis at Towson State University" from the Graduate School office.

#### TIME LIMITATION FOR COMPLETION OF DEGREE REQUIREMENTS

All requirements for the master's degree must be completed within a seven year period.

#### REENTRY TO A DEGREE PROGRAM AFTER LAPSE OF TIME LIMITATION

For readmission to a degree program after the seven year period for completion of the degree has elapsed, the student's records are evaluated and admission is granted under current Graduate School policy. Courses taken while previously admitted are not applicable to the degree. They are not repeated, but are replaced with additional courses approved by the advisor.

#### CHANGE FROM ONE DEGREE PROGRAM TO A DIFFERENT PROGRAM

Students may request a change of program at any time, but may not be enrolled in two master's degree programs concurrently. The request can be either in the form of a letter to the Dean of the Graduate School, or an action request form obtained from the Graduate School office. The standing granted in the original program does not guarantee similar standing in the new program, which is entered subject to policies in effect at the time of the change.

Courses taken prior to the transfer may be utilized as part of the degree program if applicable. All courses, including those taken in the earlier program and used in the new program, are calculated in the GPA considered for graduation. The seven year period permitted for completion of program requirements begins with the earliest course taken in the earlier program that is used in the new program.

It is possible to return to the first program if the return is requested in writing within 60 days of the original request to change programs. The student may return to the original program after the 60 day period subject to admission policies in effect at the time of the application to return.

#### APPLICATION FOR GRADUATION

The request for graduation review for a degree or a certificate of advanced studies in School Psychology is submitted to the graduate office with the graduation fee. The deadline for submission of the application is published in the academic calendar on page 1 of this catalog and in the schedule booklet. If the application is submitted late, graduation is postponed until the next graduation date.

All graduation requirements including resolution of incomplete grades and acceptance of the completed thesis (if a thesis is undertaken) must be completed by the last day of the semester for which the student is applying for graduation.

If the student does not complete requirements for graduation, the application must be resubmitted during the semester in which graduation is desired. The graduation fee is required only with the first submission of the application.

# REGISTRATION AND FEES

## REGISTRATION

Information concerning registration may be obtained in the graduate office. Students who have never applied for admission and are registering for the first time may take 500-600 level courses for graduate credit by completing the "application for admission to graduate studies." Registration for 700- and 800-level courses is contingent upon the granting of full admission.

## FEES

Tuition and other fees are subject to change without notice by action of the board of trustees.

Application fee: (non-refundable) .....	\$10.00
Tuition:	
undergraduate, per semester hour .....	\$60.00
graduate, per semester hour .....	\$83.00
University fee: (non-refundable) .....	\$63.50
Non-resident.....	\$10.00
Late registration fee .....	\$75.00
Change of course fee: (non-refundable)	
assessed for the addition or deletion of courses from either the original application or from the registration form .....	\$5.00
Transcript fee: (first copy free) .....	\$3.00
Car registration: an assessment for each student	
bringing a car on campus (per semester) .....	\$21.00
Final or make-up examination fee: if an examination is administered at other than the designated time .....	\$5.00
Private music lessons .....	\$85.00 per semester hour plus tuition
Replacement fee: Graduate I.D. card .....	\$5.00
Graduate fee: for master's degree	
plan A (with thesis) .....	\$30.00
plan B (without thesis) .....	\$25.00



# GRADUATE PROGRAMS

ART EDUCATION .....	Master of Education
BIOLOGY .....	Master of Science
EARLY CHILDHOOD EDUCATION .....	Master of Education
ELEMENTARY EDUCATION .....	Master of Education
FOREIGN LANGUAGES .....	Master of Arts
GEOGRAPHY AND ENVIRONMENTAL PLANNING .....	Master of Arts
HEALTH SCIENCE .....	Master of Science
HUMAN RESOURCE DEVELOPMENT .....	Master of Science
INSTRUCTIONAL TECHNOLOGY .....	Master of Science
LIBERAL STUDIES .....	Master of Arts
MASS COMMUNICATION .....	Master of Arts
MUSIC EDUCATION .....	Master of Education
OCCUPATIONAL THERAPY .....	Master of Science
PROFESSIONAL WRITING .....	Master of Science
PSYCHOLOGY .....	Certificate of Advanced Study
READING .....	Master of Education
SECONDARY EDUCATION .....	Master of Education
SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY .....	Master of Science
STUDIO ARTS .....	Master of Fine Arts

## ART EDUCATION

Degree: Master of Education  
Program Coordinator: Jane Bates

The degree program is structured to provide insights into the creative process and its educational, therapeutic and historical implications. It also aims to increase understanding, sensitivity and skill in the graphic and plastic arts.

### Admission Requirements:

1. Certification as a public school art teacher  
or
2. Courses in both art and education areas as follows (32 s.h.):
  - a. Art (27 s.h.)  
Fundamentals of Design (two-and three-dimensional) (6)  
Ceramics and Sculpture (6)  
Drawing, Painting and Graphic Processes  
some credit required in each area (9)  
Art History (6)
  - b. Education (5 s.h.)  
Educational Psychology or Human Growth and Development (3)  
Methods of Teaching Art (2)

### Degree Requirements:

1. Plan A. Master of Education with thesis (minimum 30 s.h.)
  - a. Required courses (15 s.h.)  
EDUC 601 Educational Ideas in Historical Perspective (3)  
PSYC 611 Developmental Psychology (3)  
ARED 695 Research in Art and Art Education (3)  
ARED 797 Seminar in Art Education (3)  
ART 898 Master of Education Thesis (3) or  
ART 897 Graduate Project in Art (3)
  - b. The thesis requirement may be met in one of two ways:  
by writing a thesis dealing with a selected problem in art and art education, (3 s.h.) or  
by undertaking a creative project. The advisor must approve the project proposal in writing. The student will exhibit the completed project at a suitable location and accompany it with written material defining its scope and philosophic content. (3 s.h.)

c. Elective courses (15 s.h.)

Courses numbered 600 to 799 should ordinarily be chosen, but a maximum of nine semester hours in 500 level courses may be taken with approval of the student's advisor.

Six semester hours may be taken in departments other than art and art education.

or

Plan B: Master of education without thesis (minimum 33 s.h.)

a. Required Courses (12 s.h.)

EDUC 601 Educational Ideas in Historical Perspective (3)  
PSYC 611 Developmental Psychology (3)  
ARED 695 Research in Art and Art Education (3)  
ARED 797 Seminar in Art Education (3)

b. Elective courses (21 s.h.)

Courses numbered 600 to 799 should ordinarily be chosen, but a maximum of nine semester hours of work in 500 level courses may be taken with the signed approval of the advisor.

Six semester hours may be taken in areas other than art and art education.

2. Successful completion of the written master's degree examination.

## BIOLOGY

Degree: Master of Science

Program Coordinator: Donald C. Forester

The degree program is designed to help the student develop proficiency in independent thought, inquiry, and research. The thesis program provides the necessary background and experience for those who plan further study for the Ph.D., whose employment requires an advanced degree in biology, or who desire to teach in community colleges. The non-thesis program is designed for those who want a broader background in biology, and secondary school teachers who want to extend their knowledge and increase their competence in cultivating the spirit of scientific inquiry through course work and optional research projects.

### Admission Requirements:

1. A supplemental application must be filed.
2. Graduate Record Examination scores on the aptitude test must be submitted.
3. Three letters of recommendation from persons familiar with the student's scientific work and aptitude must be sent to the biology graduate coordinator. The letters should be submitted by former instructors in the student's undergraduate major or from a current supervisor in the field of biology.
4. Interview with the biology graduate coordinator upon admission.
5. Minimum of 24 s.h. in biology.
6. Allied courses in general and organic chemistry and physics.
7. Grade point average of 3.00 in biology and 3.00 overall cumulative average is required for full admission.
8. Students should indicate their area of specialization in order to select an advisor.

### Degree Requirements

1. Master of Science with thesis (minimum 30 s.h.)

At least 21 s.h. at the 600- and 700-levels. A thesis based on laboratory and/or field research is required. The final examination is an oral defense of the thesis and a written examination in the area of concentration.

Required courses 4 s.h.

BIOL 797 Graduate Seminar (1)  
BIOL 898 Thesis (3)

Elective courses (26 s.h.)

Selected from courses approved by the student's graduate committee.

Upon approval of the graduate committee, a maximum of six s.h. in allied courses from other departments may be applied toward degree requirements.

or

Master of Science without thesis (minimum 36 s.h.)

At least 27 s.h. must be at the 600-, 700- and 800-levels.

Required courses (1 s.h.)

BIOL 797 Graduate Seminar (1 s.h.)

Elective courses (35 s.h.)

Chosen from courses approved for the program of study by the biology graduate coordinator.

Upon approval of the graduate committee, a maximum of six s.h. in allied courses from other departments may be applied toward degree requirements.

### Area of Concentration

Under either the thesis or non-thesis option, a student may choose an area of concentration which will be recorded on the transcript. Approval of the graduate advisor and the biology graduate committee is required.

2. Successful completion of the GRE Subject Examination in Biology. This requirement may be fulfilled by:

- a. Obtaining a minimum sealed rating of 60%  
or
- b. Obtaining a total of 190 percentile points in the three sub areas (cellular, organismal, population).
3. Successful completion of the written master's degree examination is required.

## EARLY CHILDHOOD EDUCATION

Degree: Master of Education

Program Coordinator: Theodora Kimsey

The degree program is structured to help teachers and others increase their competence in working in education programs for children from birth through eight years of age. It is designed to prepare teachers, directors, and supervisors for various education programs for young children such as day care centers, public and private nursery schools, kindergartens, and primary schools.

### Admission Requirements:

Certification as an early childhood education public school teacher

or

Certification as an elementary public school teacher plus six semester hours in early childhood education at the undergraduate level

or

Undergraduate courses in the following areas (15 s.h.):

- a. General Psychology, Educational Psychology, or Psychology of Learning (3)
- b. Child Psychology, Child Growth and Development, Human Growth and Development, or Personality (3)
- c. Curriculum and Methods in Early Childhood Education (6 s.h.)
- d. Three hours chosen from the following areas:  
History of Education  
Foundations of Education  
Philosophy of Education  
Principles of Education  
Sociology of Education

These courses cannot be used to meet part of the formal elective requirements for the degree as defined on the following page.

## Degree Requirements

1. Completion of required prerequisite courses.
2. Plan A.: Master of Education with thesis (minimum 30 s.h.)
  - a. Required courses (12 s.h.)  
EDUC 601 Educational Ideas in Historical Perspective (3)  
EDUC 761 Introduction to Research in Education (3)  
ECED 898 Master's Thesis in Early Childhood Education (3)  
ECED 609 Growth and Development of Young Children (3)  
  
or  
PSYC 611 Developmental Psychology (3)

### b. Elective Courses (18 s.h.)

Twelve semester hours must be earned in departments other than education, except with approval of the program coordinator.

Selection of courses should be made with the advice and approval of the program coordinator. Each program of study is designed to meet the needs and interests of the individual student.

At least nine semester hours must be selected from courses numbered 600 to 799.

or

### Plan B: Master of Education without thesis (minimum 33 s.h.)

- a. Required Courses (12 s.h.)  
EDUC 601 Educational Ideas in Historical Perspective (3)  
EDEC 773 Seminar in Early Childhood Education (3)  
EDUC 761 Introduction to Research in Education (3)  
EDEC 609 Growth and Development of Young Children (3)

or

PSYC 611 Developmental Psychology (3)

### b. Elective courses (21 s.h.)

Twelve semester hours must be earned in departments other than education, except with the approval of the program coordinator.

Selection of courses should be made with the advice and approval of the program coordinator. Each program of study is designed to meet the needs and interests of the individual student.

At least 12 semester hours must be selected from courses numbered 600 to 799.

### 3. Successful completion of the written master's degree examination.

NOTE: Any applicant not certified as an early childhood teacher should be aware that completion of the master's degree does not automatically result in state certification. Non-certified applicants should contact their advisors prior to enrolling in any course work.

## ELEMENTARY EDUCATION

Degree: Master of Education

Program Coordinator: Joseph Suhorsky

A Program may be developed which includes one of the following emphases: curriculum, resource teaching, reading, educational leadership, learning difficulties, or the gifted student.

In order to enable the in-service teacher to continue progress toward the achievement of academic and professional goals, the degree program is designed to (1) assist students in assessing their level of competency as teachers and to build upon their educational and professional experience; (2) provide avenues through which individuals may continue to grow in understanding, involvement in, and appreciation of the emerging society; (3) help students to extend teaching competencies to new levels of development; (4) encourage a spirit of inquiry and teaching research skills useful in continuing study; (5) help students acquire a deepening functional understanding of human growth and development; and (6) guide students toward

understanding their roles as agents of changes within the educational enterprise.

## Admission Requirements

Certification as an elementary public school teacher  
or

Undergraduate courses in the following areas (total: 12 s.h.)

- a. Educational Psychology or Human Growth and Development (3)
- b. Organization and Curriculum of the Elementary School (6)
- c. Three semester hours chosen from the following areas:  
History of Education  
Foundations of Education  
Philosophy of Education  
Sociology of Education

## Degree Requirements:

1. Completion of required prerequisite courses.
2. Plan A. Master of Education with thesis (minimum 30 s.h.)
  - a. Required Courses (12 s.h.)  
EDUC 601 Educational Ideas in Historical Perspective (3)  
EDUC 761 Introduction to Research in Education (3)  
ECED 898 Master's Thesis in Elementary Education (3)  
ECED 665 Theory and Practice of Curriculum Development in the Elementary School (3)
  - b. Elective Courses (18 s.h.) A maximum of nine semester hours of electives may be at the 500 level.  
Nine semester hours of electives must be selected from the following group:  
ELED 511 Staff Development and Leadership in the Elementary School (3)  
ELED 529 Methods and Principles of Reading Instruction—Advanced (3)  
ELED 611 Reading and Other Language Arts in the Elementary School—Advanced (3)  
ELED 613 Psycholinguistics and Reading Comprehension (3)  
ELED 621 Diagnosis and Prescription for Learning Difficulties (3)  
ELED 623 Diagnosis and Prescription for Learning Difficulties—Advanced (3)  
ELED 631 Educating the Gifted (3)  
ELED 633 Reading and Language Arts for Gifted Students (3)  
ELED 637 Mainstreaming for the Classroom Teacher (3)  
ELED 640 Discipline and Management in the Elementary School (3)  
ELED 648 Individualizing Learning in the Elementary School (3)  
ELED 661 Humanizing the Curriculum (3)  
ELED 665 Theory and Practice of Curriculum Development in The Elementary School (3)  
ELED 685 Seminar in Elementary School Social Studies (3)  
ELED 716 The Administration of the Elementary School (3)  
ELED 647 The Teaching Process: Elementary Education (3)  
ELED 781 Seminar in Elementary Supervision (3)

Nine semester hours of electives are selected in consultation with the students's advisor. Recommended courses include:

PSYC 611 Developmental Psychology (3)

PSYC 640 Mental Hygiene in Education (3)

PSYC 705 Principals of Guidance (3)

or

Plan B: Master of Education without thesis (minimum 33 s.h.)

- a. Required Courses (12 s.h.)

EDUC 601 Educational Ideas in Historical Perspective (3)

- EDUC 671 Introduction to Research in Education (3)  
 ELED 665 Theory and Practice of Curriculum Development in the Elementary School (3)  
 ELED 775 Seminar in Elementary Education (3)

b. Elective Courses (21 s.h.) A maximum of nine semester hours of electives may be at the 500 level.

Nine semester hours of electives must be selected from the following group.

- ELED 511 Staff Development and Leadership in the Elementary School (3)  
 ELED 529 Methods and Principles of Reading Instruction—Advanced (3)  
 ELED 611 Reading and Other Language Arts in the Elementary School—Advanced (3)  
 ELED 613 Psycholinguistics and Reading Instruction (3)  
 ELED 621 Diagnosis and Prescription for Learning Difficulties (3)  
 ELED 623 Diagnosis and Prescription for Learning Difficulties—Advanced (3)  
 ELED 631 Educating the Gifted (3)  
 ELED 633 Reading and Language Arts for Gifted Students (3)  
 ELED 637 Mainstreaming for the Classroom Teacher (3)  
 ELED 640 Discipline and Management in the Elementary School (3)  
 ELED 648 Individualizing Learning in the Elementary School (3)  
 ELED 661 Humanizing the Curriculum (3)  
 ELED 665 Theory and Practice of Curriculum Development in the Elementary School (3)  
 ELED 685 Seminar in Elementary School Social Studies (3)  
 ELED 716 The Administration of the Elementary School (3)  
 HLTH 647 The Teaching Process: Elementary Education  
 HLTH 781 Seminar in Elementary Supervision (3)

Twelve semester hours of electives are selected in consultation with the student's advisor. Recommended courses include:

- PSYC 611 Developmental Psychology (3)  
 PSYC 640 Mental Hygiene in Education (3)  
 PSYC 705 Principals of Guidance (3)

3. Successful completion of the written master's degree examination.

Note: Any applicant not certified as an elementary teacher should be aware that completion of the master's degree is not accompanied by automatic state certification. Non-certified applicants should contact their advisors prior to enrolling for any coursework.

## FOREIGN LANGUAGES

Degree: Master of Arts  
 Program Coordinator: Jorge A. Giro

The degree program develops the competence of students in foreign languages and provides knowledge of linguistics, stylistics and the analysis of literature in the chosen language. The objectives are to: (1) develop practical skills for use in international commerce, business, industry and the professions; (2) extend and reinforce the teacher education program that is historically a mission of Towson State University; (3) provide enriching experiences for the increasing number of mature students returning to study in search of the satisfaction and stimulation of continuing intellectual growth; (4) contribute to other academic programs recognizing that graduates in business, education, health, international affairs, Latin-American studies and others often need advanced training in foreign languages.

### Admission Requirements:

1. A minimum of 30 upper division undergraduate credit hours in French, German or Spanish or acceptable evidence of equivalent proficiency.
2. A grade point average of at least 3.0 in foreign language courses.

### Degree Requirements:

1. Plan A. Master of Arts with thesis (30 s.h.)
    - Common core courses (9 s.h.)
    - Literature and language courses (9 s.h.)
    - Elective courses (6 s.h.)
    - Thesis (6 s.h.)
- or
2. Plan B. Master of Arts without thesis (30 s.h.)
    - Common core courses (9 s.h.)
    - Literature and language courses (15 s.h.)
    - Elective courses (6 s.h.)

Both Plan A and Plan B include the following core courses:

- Fundamentals of Translation (Morgan State Univ.)
- Foundations of Linguistics and Semiotics (University of Maryland, Baltimore County)
- Literature and Society (Towson State University)

Students elect one of the following concentrations:  
 French, German, Spanish.

2. Satisfactory completion of the master's degree examination.

### The Baltimore Graduate Consortium in Foreign Language and Linguistics

Towson State University offers the master of arts degree in foreign languages in cooperation with Morgan State University and the University of Maryland, Baltimore County, through the Baltimore Graduate Consortium in Foreign Language and Linguistics. It is through the consortium that the 9 s.h. core is offered. Students take one core course from each institution. Additional courses can be taken from the other consortium institutions with the approval of the advisor. The core courses and their locations are listed above.

## GEOGRAPHY AND ENVIRONMENTAL PLANNING

Degree: Master of Arts  
 Program Coordinator: Kenneth Haddock

The degree program is designed to prepare students for doctoral programs as well as for career opportunities in private business and public agencies. The program is oriented toward applied geography and presents possibilities for an emphasis in the following areas: urban-regional planning, urban studies, public policy issues, physical geography, environmental assessment, energy resources, cultural-historical geography, medical geography, population, area studies, cartography, and computer applications.

Graduate students in geography and environmental planning are encouraged to take pertinent coursework in other departments.

### Admission Requirements:

1. An undergraduate major or minor in geography or the equivalent in related courses and/or professional experience.\*
2. "B" grade average in the geography courses presented for admission.\*

### Degree Requirements:

1. Evidence of at least four semesters of college-level competency in one foreign language or evidence of quantitative competency. Successful completion of GEOG 375, Quantitative Methods in Geography (or an approved equivalent), with a grade of "C" or higher, or "B" or higher if taken for graduate credit, plus at least one other approved course in computer techniques are assumed to constitute quantitative competency.
2. Plan A. Master of Arts with thesis (minimum 30 s.h.)
  - Required Courses (12 s.h.)

GEOG 601 Geographic Methodology and Techniques: Trends and Prospects (3) must be taken within the first year of the degree program.

GEOG 621 Research Techniques (3)

GEOG 898 Thesis (6)

Planned elective courses (18 s.h.)

At least nine of the elective semester hours must be taken at the 600 and 700 level.

or

Plan B. Master of Arts without thesis (minimum 36 s.h.)

Required Courses (6 s.h.)

GEOG 601 Geographic Methodology and Techniques: Trends and Prospects (3) must be taken within the first year in the degree program.

GEOG 621 Research Techniques (3)

Elective Courses (30 s.h.)

At least twenty-one of the elective semester hours must be taken at the 600 and 700 levels.

3. All students must complete the written comprehensive examination — taken during the last semester of degree work.

The MA program in Geography and Environmental Planning has two tracks: Track I, Geography, and Track II, Environmental Planning. Each track includes a thesis and a non-thesis option. Students in the Environmental Planning track must select at least one half of their electives from planning courses.

\* Applications by individuals from cognate discipline backgrounds are welcomed.

## HEALTH SCIENCE

Degree: Master of Science

Program Coordinator: Susan Radius

Towson State University offers a three-track program with specializations in school health, community health education and administration. Upon completion of the degree program, the student will have acquired knowledge and understanding of the facts, theories and principles basic to the science of school health, community health, or administration in health services as well as in supporting behavioral, sociological and/or educational areas.

The student entering the school health track can consider such future employment possibilities as classroom health teacher, supervisor or coordinator of the health science program within a school system, health educational media specialist, program evaluation specialist within a school system, continuing education and school personnel department.

A graduate of the community health education program may pursue a career as a health education specialist in a variety of public or private sector agencies. Students holding current credentials in pharmacy, nursing, dentistry, dietetics and other professions may wish to combine their skills from prior training, and redirect their careers toward community education related to their specific prior training. Because the program provides professional training in public health and administrative skills, students may focus on such areas as program planning, evaluation, patient education, work-site health promotion, and others.

A graduate of the program with administrative concentration is prepared for positions in public health that require sound backgrounds in both public health and administration.

### Admission Requirements:

#### School Health Education and Community Health

1. An undergraduate degree in health education or health science or  
2. Substantial course work in health and related science and/or related work or field experiences as determined by the graduate coordinator of the health science department

3. A grade point average of 2.75 is required for conditional admission.

#### Health Science Administrative Concentration

1. An undergraduate degree in a health science field (e.g., nursing, health education, environmental studies, psychology) or
2. Substantial course work in health and related sciences, with field experiences and/or continuous employment as determined by the graduate coordinator of the health science department.
3. A grade point average of 2.75 is required for conditional admission.

#### Degree Requirements:

1. Completion of required prerequisite courses.
2. General requirements are for 27 semester hours of health education courses and a minimum of nine s.h. in a support area such as psychology, sociology, biology, counseling, education, instructional technology, business administration, geography or another approved area. The program of study with the administrative concentration contains 24 semester hours of health science courses and 12 in business administration.

#### School Health Education

Health Science Core — 12 s.h. required

- HLTH 639 Education and Training in Health Care (3)  
HLTH 625 Research Methods (3)  
HLTH 785 Graduate Seminar (3)  
HLTH 601 School Health Problems (3)

Content Health Core — 6 s.h. elective

- HLTH 501 Sex Education and Family Life (3)  
HLTH 505 Drugs in Our Culture (3)  
HLTH 551 Ecological Aspects of Health (3)  
HLTH 637 Leadership Skills (3)  
HLTH 643 Health Education: Curriculum Development and Supervision (3)

Elective Health Core — 6 s.h.

Support Core — 9 s.h.

Final Project 3 s.h.

- HLTH 898 Master's Thesis in Health (3) or  
HLTH 897 Graduate Project in Health Science (3)

#### Community Health

Health Science Core — 18 s.h. required

- HLTH 639 Education and Training in Health Care (3)  
HLTH 625 Research Methods (3)  
HLTH 785 Graduate Seminar (3)  
HLTH 601 School Health Problems (3)  
HLTH 615 Quantitative and Qualitative Elements (3)  
HLTH 631 Program Planning in Health Education (3)

Content Health Core — 6 s.h. elective

- HLTH 633 Health Care Systems (3)  
HLTH 641 Patient Education (3)  
HLTH 637 Leadership Skills (3)  
HLTH 617 Health Administration (3)  
HLTH 651 Planning and Marketing Health in Business and Industry (3)

Support Core — 9 s.h.

Final Project 3 s.h.

- HLTH 898 Master's Thesis in Health (3) or  
HLTH 897 Graduate Project in Health Science (3)

#### Administration

Health Science Core — 12 s.h. required

- HLTH 639 Education and Training in Health Care (3)  
HLTH 625 Research Methods (3)  
HLTH 785 Graduate Seminar (3)  
HLTH 615 Quantitative and Qualitative Elements (3)

## **Content Health Core — 9 s.h. required**

- HLTH 601 School Health Problems (3)
- HLTH 631 Program Planning in Health Education (3)
- HLTH 633 Health Care Systems (3)
- HLTH 641 Patient Education (3)
- HLTH 617 Health Administration (3)
- HLTH 637 Leadership Skills (3)
- HLTH 651 Planning and Marketing Health in Business and Industry (3)

## **Support Core — 12 s.h. Business Administration**

- MNGT 511 Management Theory (3)
- Electives 9 hours

## **Final Project 3 s.h.**

- HLTH 898 Master's Thesis in Health (3) or
- HLTH 897 Graduate Project in Health Science (3).

3. Successful completion of the written master's degree examination.

## **HUMAN RESOURCE DEVELOPMENT**

Degree: Master of Science

Program Coordinator: Lawrence Froman

The Master of Science Degree in Human Resource Development is designed to meet the personnel needs of business, industry, non-profit organizations or government by preparing individuals at the graduate level to design, implement and evaluate developmental programs. Among the roles for which graduates are prepared are administrator, trainer, career development specialist, program designer, instructional writer, employee assistance program coordinator and evaluator.

### **Admission Requirements:**

1. A 3.0 undergraduate average is required for full admission.
2. A 2.3 undergraduate average is required for conditional admission.

### **Degree Requirements:**

1. Core requirements: All students must complete six core courses (18 s.h.)

Core I: Organizational Behavior (3 s.h.)

MNGT 601 Administrative Theory and Practice (3)  
or

PSYC 679 Organizational Behavior (3)

Core II: Employee Development (3 s.h.)

SCED 627 Human Resource Development (3)  
or

PSYC 617 Mental Health Issues in the Workplace (3)

Core III: Program Design (6 s.h.)

ISTC 667 Instructional Development (3)

ECON 601 Economics of Human Resource Development (3)

Core IV: Research, Evaluation and Seminar (6 s.h.)

PSYC 601 Human Resource Development Seminar (3)  
and

one of the following

ISTC 795 Introduction to Research in Instructional Technology (3)

EDUC 792 Introduction to Educational Evaluation (3)

HLTH 615 Community Health: Qualitative and Quantitative Elements (3)

PSYC 687 Advanced Experimental Design I (3)

2. Core Concentration (9 s.h.)

A concentration of nine semester hours must be selected from one core.

Core I: Nine semester hours selected from:

MCOM615 Administrative and Professional Communicology (3)

## **HLTH 617 Public Health Administration (3)**

HLTH 633 Health Care Systems (3)

Core II: Nine semester hours selected from:

HLTH 637 Skill Development: Leadership in the Health Care Setting (3)

PSYC 603 Human Learning (3)

PSYC 611 Developmental Psychology (3)

PSYC 625 Behavioral Techniques (3)

PSYC 651 Techniques of Group Intervention (3)

PSYC 706 Introduction to Career Development (3)

Core III: Nine semester hours selected from:

ISTC 633 Instructional Television (3)

ISTC 655 Media Design and Production I (3)

ISTC 656 Media Design and Production II (3)

ISTC 663 Applied Psychology of Learning (3)

ISTC 687 Media design for Individual Instruction

MCOM601 Media Writing (3)

MCOM688 Seminar in Media Production: Film (3)

JCED 633 Curriculum and Instruction in the Community College (3)

HLTH 639 Education and Training in Health Care (3)

PSYC 603 Human Learning (3)

PSYC 708 Media in Career Education (3)

Core IV: Nine semester hours selected from:

COSC 613 Hardware and Software in Microcomputers (3)

COSC 670 Special Topics in Computer Science (3)

679

EDUC 614 Educational Tests and Measurements for Research (3)

HLTH 625 Research Methods in Health (3)

PSYC 688 Advanced Experimental Design II (3)

PSYC 689 Multivariate Methods

PSYC 695 Application of Systematic Research Methods (3)

PSYC 895 Master's Thesis in Human Resource Development (3)

3. Electives (9 s.h.)

Nine semester hours of planned electives are selected from graduate courses in the following departments:

Behavioral Science (Psychology)

Business

Computer Science

Economics

Education

4. Satisfactory completion of the written master's degree examination.

## **INSTRUCTIONAL TECHNOLOGY**

Degree: Master of Science

Program Coordinator: Gary W. Rosecrans

Students select one of two concentrations. Track I (Instructional Development) offers a flexible program of study designed to develop competencies in instructional design and media-related competencies for those who wish to work in training or instructional settings in business, industry, government, military or medical education. Track II (Educational Media Generalist) meets the Maryland State Department of Education requirements for the Media Generalist Certification and is designed for students who wish to serve as directors of school media centers.

### **Admission Requirements:**

1. **Track I, Instructional Development**

a. Completion of the following course or its equivalent:

ISTC 301 Utilization of Instructional Media

b. Applicants must obtain satisfactory ratings in all admissions tests.

c. Conditionally admitted students are required to write an essay. The intent of the essay is to test the competency of the applicants in written communication.

## **2. Track II, Educational Media Generalist**

- a. Completion of the following courses or their equivalents:  
PSYC 201 Educational Psychology (3)  
SCED 319 Survey of Educational Programs (3)  
One of the following:  
EDUC 401 Foundations of Education (3)  
EDUC 402 History of Education (3)  
EDUC 405 Philosophy of Education (3)
- Completion of the following courses or their equivalents:  
ISTC 301 Utilization of Educational Media (3)  
ISTC 471 Reference and Information Sources (3)  
ISTC 473 Cataloging and Classifying Media (3)
- b. Applicants must obtain satisfactory ratings in all admissions tests.
- c. Conditionally admitted students are required to write an essay, the purpose of which is to test the applicant's competency in written communication skills.

### **Degree Requirements:**

1. Completion of Track I or Track II courses.

#### **Track I, Instructional Development**

Plan A: Master of Science with thesis (minimum 33 s.h.)

##### a. Required courses (18 s.h.)

- ISTC 663 Applied Psychology of Learning (3)
- ISTC 667 Instructional Development (3)
- ISTC 687 Computer-Assisted Instruction (3)
- ISTC 695 Research in Instructional Technology (3)
- ISTC 898 Master's Thesis in Instructional Technology (6)

##### b. Elective courses (15 s.h.)

Selection of elective courses must be made with the advice and approval of a program advisor. Nine semester hours must be in instructional technology and three hours may be within or outside the department.

Plan B: Master of Science without thesis (minimum 36 s.h.)

##### a. Required courses except for thesis are identical to plan A.

##### b. Elective courses (24 s.h.)

Selection of elective courses must be made with the advice and approval of a program advisor. Twelve semester hours must be in instructional technology and nine semester hours may be within or outside the department.

#### **Track II, Educational Media Generalist**

Plan A: Master of Science with thesis (minimum 30-36 s.h.)

##### a. Required courses:

- ISTC 655 Media Design and Production I (3)
- EDUC 516 Children's Literature (3) or  
EDUC 518 Young Adult Literature (3)
- ISTC 601 Organization and Administration of Media Center Programs (3)
- ISTC 615 Media Selection (3)
- ISTC 663 Applied Psychology of Learning (3)
- ISTC 667 Instructional Development (3)
- ISTC 695 Research in Instructional Technology (3)
- ISTC 789 Graduate Practicum in Instructional Technology (3 or 6)

ISTC 898 Master's Thesis in Instructional Technology (6)

##### b. At least 24 semester hours of courses must be at the 600- and 700-levels.

Plan B: Master of Science without thesis (minimum 36 s.h.)

##### a. Required courses are identical to Plan A, except for the deletion of ISTC 898, Master's Thesis in Instructional Technology (6)

##### b. Elective courses (9-15 s.h.)

c. At least 27 semester hours of courses must be at the 600- and 700-levels.

##### 2. Successful completion of the written master's degree examination taken in the last semester of degree work.

##### 3. Completion of required prerequisite courses.

## **LIBERAL STUDIES**

Degree: Master of Arts

Program Coordinator: Frederick C. Arnold

The degree program is for students who wish to pursue an individually planned program of study not possible in a traditional master's degree program. The program is interdisciplinary in nature, but permits development within a specific discipline. Morgan State University is a cooperating institution with twelve hours of the program taken there.

### **Admission Requirements:**

1. Grade point average of 3.0 (2.3 for conditional admission).
2. A brief admission essay in which the applicant discusses the reasons for entering the program, goals to be accomplished by admission and how the program will meet personal and professional aspirations.

### **Degree Requirements:**

1. Required core (12 s.h.)  
GENL 601, Introductory Seminar in Liberal Studies (3) This course must be taken within the first nine hours of degree work.  
A 600/700 level independent study course (3) The topic and discipline must be approved by the student's advisor.  
Advanced Writing Course (3)  
May be any approved graduate writing course.  
GENL 602, Culminating Seminar in Liberal Studies (3) This course must be taken during the last semester of the degree program.
2. Elective core (24 s.h.)  
The elective credits must be approved for the student's program of study in advance of enrollment for the courses. These hours are divided evenly between Towson State University and Morgan State University. The elective core is selected from either a disciplinary or interdisciplinary orientation.
  - a. Disciplinary orientation—eighteen hours in a single discipline with six hours in a supporting discipline.
  - b. Interdisciplinary orientation—The student takes courses in at least three disciplines with a maximum of twelve hours in any one discipline.
3. Satisfactory completion of the master's degree examination.



## MASS COMMUNICATION

Degree: Master of Arts

Program Coordinator: Peter A. Lev

The degree program is structured to integrate communication, film, journalism, public relations, radio and television. By emphasizing the interrelationships and interactions of various media, the program is modeled upon an holistic design.

Students who complete the master of arts degree in mass communication should have developed an in-depth knowledge of the philosophy, research methods and professional media skills appropriate to their academic pursuits and career goals.

### Admission Requirements:

1. A bachelor's degree in mass communication  
or
2. A minimum of 24 s.h. in mass communication or mass communication related courses or prior experience in the field approved at the option of the graduate coordinator. The major or the 24 s.h. must include:
  - a. The following courses or their equivalents: MCOM 355 or MCOM 356; MCOM 315; and PSYC 111 or MATH 231
  - b. Courses in three of the following areas: communicology, film, journalism, public relations, radio, television, English, psychology, or business administration
3. A minimum undergraduate GPA of 2.75 is required for conditional admission to the program.

### Degree Requirements:

1. Completion of required prerequisite courses.

2. Plan A. Master of Arts with thesis (30 s.h.)

Completion of a total 24 s.h. of course work. A minimum of 21 must be earned at the 600-800 levels. The remaining semester hours may be selected from 500, 600, or 700 levels.

#### Required courses

MCOM 601, Media Writing (3) and MCOM 621, Mass Media Law and Regulations (3). Both courses must be taken within the first 12 hours of degree work.

MCOM 615, Administrative and Professional Communicology (3) and MCOM 701, Media Interrelationships (3)

Either MCOM 711, Theories in Mass Communication (3) or MCOM 721, Research Methods in Mass Communication (3)

#### Elective courses (9 s.h.)

The elective credits must be approved by the student's graduate advisor prior to enrollment in the courses.

A thesis (6 s.h.) which demonstrates the student's ability to do independent research in Mass Communication.

or

Plan B. Master of Arts without thesis (33 s.h.)

#### Course requirements for the degree

A minimum of 24 s.h. must be earned at the 600-800 levels. The remaining semester hours may be selected from 500-, 600- or 700-levels.

Required courses except for thesis are identical to Plan A.

#### Elective courses (18 s.h.)

The elective credits must be approved by the student's graduate advisor prior to enrollment in the courses.

3. Satisfactory completion of a departmental candidacy examination and a comprehensive examination (written and oral) are required.

A maximum of six semester hours of all practica, independent studies and internships may be counted toward the degree.

## MUSIC EDUCATION

Degree: Master of Education

Program Coordinator: Clifford D. Alper

The degree program provides opportunities for students to: (1) develop individual talents and interests within the field of music education; (2) become aware of implications of trends in the field; (3) increase insights into such areas as music history/literature, theory/composition, and applied music, as well as music education; and (4) to conceptualize about music and music education through lectures, seminars, individual research projects, and private instruction.

### Admission Requirements:

1. Certification as a public school music teacher  
or  
49 semester hours in undergraduate music courses.
2. Minimum grade point average of 3.0 in music courses for full admission, or 2.3 for conditional admission.
3. Interview with the graduate coordinator.

### Degree Requirements:

1. Plan A: Master of education in music education with thesis (minimum 30 s.h., 21 of which must be at the 600-800 levels) Maximum of 9 semester hours at the 500 level.  
Required courses (18 s.h.)

EDUC 601 Educational Ideas in Historical Perspective (3)  
PSYC 611 Developmental Psychology (3)  
MUED 601 Current Trends in Music Education (3)  
MUSC 695 Research Methods in Music and Music Education (3)  
MUSC 898 Thesis (3)

Plus one of the following courses:

MUSC 661 Seminar in Instrumental Music (3)  
MUSC 662 Seminar in Choral Music (3)

or

Plan B: Master of education in music education with graduate project (minimum 34 semester hours 25 of which must be at the 600-800 levels). Maximum of 9 semester hours at the 500-level.

#### Required courses (15 s.h.)

Identical to Plan A except for thesis

Student must select option I or option II

Option I (33 s.h. with recital or composition) includes:

MUSC 897 Graduate Project (1) and 2 semester hours of concurrent private lessons.

Option II (34 s.h. with research paper) includes:

MUSC 897 Graduate Project (1) taken in semester of completion of research paper.

## ELECTIVE COURSES PLAN A AND PLAN B

### AREA I (minimum 3 s.h.)

MUSC 501 Music Prior to 1600 (3)

MUSC 502 Music of the Baroque Period (3)

MUSC 503 Music of the Classical Period (3)

MUSC 504 Music of the Romantic Period (3)

MUSC 505 Contemporary Music (3)

MUSC 506 Survey of Solo Voice Literature (3)

MUSC 509 History and Literature of Guitar, Lute and Vihuela (3)

MUSC 510 Survey of Organ Literature (3)

MUSC 511 Survey of Opera (3)

MUSC 513 Symphonic Literature (3)

MUSC 515 The Concerto (3)

MUSC 517 Piano Literature (3)

MUSC 521 American Music (3)

MUSC 571 Special Topics in Music Literature (3)

MUSC 593 Independent Research in Music Literature (3)  
MUSC 671 Special Topics in Music Literature (3)

**AREA II** (minimum of 3 s.h.)

MUSC 507 Tonal Counterpoint (3)  
MUSC 508 Modal Counterpoint (3)  
MUSC 527 528 Jazz Arranging (3, 3)  
MUSC 531 Advanced Choral and Instrumental Arranging (3)  
MUSC 535 Form and Analysis (3)  
MUSC 631 Advanced Theory (3)  
MUSC 639 Music Composition (3)

**AREA III** (minimum of 3 s.h.)

MUSC 512 Wind Ensemble (1)  
MUED 519 Workshop: Aspects of String Teaching (2-6)  
MUSC 520 Workshop in Music Instrument Repair (1)  
MUSC 529-Jazz Improvisation (3, 3)  
530  
MUSC 532 Seminar in Advanced Instrumental Conducting and Interpretation (1)  
MUSC 541 Church Music Skills (3)  
MUSC 549-String Ensemble (1, 1)  
550  
MUSC 559-TSU Choral Society (1, 1)  
560  
MUSC 567-Orchestra (1, 1)  
568  
MUSC 569-Symphonic Band (1, 1)  
570  
MUSA 671-Private Instruction: Piano, Instrumental, Voice, 690 Composition (1-2)  
MUSC 601 Advanced Opera Workshop (1)  
MUED 603 Music in Special Education (3)  
MUED 617 Choral Workshop in Elementary and Secondary School Music (2)  
MUSC 618 Workshop in Class Piano Pedagogy (2)  
MUED 621 Workshop: Teaching Guitar in the Classroom (2)  
MUSC 633 Advanced Woodwinds (3)  
MUED 639 Advanced Workshop in Elementary and Junior High General Music (2)  
MUED 670-Workshops in Music Education (2-3)  
679  
MUSA 671-Private Instruction: Piano, Instrument, Voice, 690 Composition (1-2)

2. Successful completion of the written master's degree examination.

## OCCUPATIONAL THERAPY

Degree: Master of Science  
Program Coordinator: Charlotte Exner

The degree program is designed for occupational therapists who wish to gain advanced knowledge and skill in the areas of pediatrics or geriatrics, or physical disabilities. Within these broad categories, students may choose to focus on education, administration, advanced clinical practice or research.

Students complete a total of 36 semester hours, of which 27 are taken in the occupational therapy department, and nine in related disciplines as selected by the student in consultation with the graduate coordinator.

### Admission Requirements:

1. Completion of an accredited entry level professional training program in occupational therapy
2. Successful completion of the American Occupational Therapy Association Certification Exam
3. A minimum undergraduate GPA of 2.50 is required for conditional admission to the program.

### Degree Requirements:

1. Courses (36 s.h.)  
Required courses (15 or 18 s.h.)
  - a. OCTH 611 Advanced Occupational Therapy Theory & Philosophy (3)  
OCTH 603 Issues in Occupational Therapy (3)  
OCTH 613 Advanced Research Methods in Occupational Therapy (3)  
OCTH 781 Graduate Seminar in Occupational Therapy (3)  
OCTH 897 Graduate Project in Occupational Therapy (3)  
or  
OCTH 898 Thesis (6)
  - b. Specialization six semester hours (student selects a, b, or c)
    - a. Pediatrics —  
OCTH 623 Assessment in Pediatric Occupational Therapy (3)  
OCTH 633 Occupational Therapy Treatment in Pediatric (3)
    - b. Gerontology —  
OCTH 621 Assessment Techniques in Gerontic Occupational Therapy (3)  
OCTH 631 Treatment in Gerontology (3)
    - c. Adult Physical Disabilities —  
OCTH 627 Assessment and Treatment of the Adult with Biomechanical Dysfunction (3)  
OCTH 625 Assessment and Treatment of the Adult with Central Nervous System Dysfunction (3)
  - c. Elective Courses (12-15 s.h.)  
Nine semester hours are elected by the student from courses in fields related to occupational therapy. Three or six semester hours are elected from occupational therapy courses depending on whether the student selects the project or thesis option.
2. Successful completion of the written master's degree examination taken in the last semester of degree work.

## PROFESSIONAL WRITING

Degree: Master of Science  
Program Coordinator: Dan L. Jones

The degree program provides advanced study in the theory of writing, writing techniques, the functions of written communication within profit and not-for-profit organizations, editing techniques, style, linguistics, and grammar. The program centers on (1) developing the communication skills of individuals seeking to enter or to advance in occupations requiring extensive written analysis and reporting of data, and (2) improving written communication and its management in professional organizations. Emphasis is on practical writing.

The program features two concentrations. Writing for the Public and Private Sectors provides experience in writing for a wide range of occupations. Writing in the Professions establishes a foundation in the principles of written communication and focuses on an area of occupational specialization: writing in the media, writing in the schools, writing in the health professions, scientific writing, or creative writing.

### Admission Requirements:

1. Two letters of recommendation must be submitted to the Graduate School by individuals qualified to judge the applicant's writing ability.
2. Submission of a portfolio of written work (practical and/or creative) to the English department is recommended but not required for admission.

## Degree Requirements:

### 1. Required Core (18 s.h.)

- WRIT 611 Rhetoric (3)  
WRIT 614 Theory of Exposition (3)  
WRIT 615 Theory of Prose Style (3)  
WRIT 617 Editing (3)  
WRIT 619 Communication in the Profit/Non-Profit Sectors (3)  
WRIT 691 Research Techniques in Professional Writing (3)

### 2. Elective Core (18 s.h.)

In addition to the required core each student completes an eighteen-hour elective program from Writing for the Public and Private Sectors or Writing in the Professions. Each concentration has a thesis and non-thesis option.

#### WRITING FOR THE PUBLIC AND PRIVATE SECTORS

##### Thesis option:

- WRIT Thesis (6) and twelve hours of electives from the following courses:  
WRIT 701 Business Writing (3)  
WRIT 702 Technical Writing (3)  
WRIT 703 Design, Layout, and Production of Printed Matter (3)  
WRIT 705 Creativity in Non-Fiction Prose (3)  
WRIT 707 Communication Management (3)  
WRIT 709 The Grant Proposal (3)  
WRIT 711 Managing the Professional Journal (3)  
WRIT 714 Freelance Writing (3)  
WRIT 723 Sociolinguistics (3)  
WRIT 725 Strategies of Persuasion (3)  
WRIT 729 Consulting I: Improving Corporate Writing (3)  
WRIT 730 Writing Reviews (3)  
WRIT 731 Writing for the Sciences (3)  
WRIT 795 Independent Study in Writing (3)

##### Non-thesis option:

Eighteen hours of electives are selected from the courses listed above.

#### WRITING IN THE PROFESSIONS

##### Thesis option:

- WRIT 798 Thesis (6) and twelve semester hours selected from courses in the application.

##### Non-thesis option:

Eighteen semester hours of courses in the application are selected.

#### Applications:

##### Biomedical Communication (18 s.h.)

Nine to eighteen semester hours are selected from the courses listed below. If fewer than eighteen hours are selected from these courses, the remaining hours are chosen from the list of elective courses at the end of this section.

- HLTH 617 Public Health Administration (3)  
HLTH 633 Health Care Systems (3)  
HLTH 651 Planning and Marketing Health in Business and Industry (3)  
ISTC 653 Introduction to Instructional Photography (3)  
ISTC 633 Instructional Television (3)  
ISTC 655 Media Design and Promotion (3)  
ISTC 667 Instructional Development (3)

##### Teaching Writing (18 s.h.)

##### Designed for Classroom Teachers

Nine to eighteen semester hours are selected from the courses listed below. If fewer than eighteen hours are selected from these courses, the remaining hours are chosen from the list of elective courses at the end of this section.

##### Required

- SCED 603 Teaching Writing Across the Curriculum (3)

##### SCED 605 Theory Research and Practice in Teaching Writing (6) (by invitation only)

or

##### Elective

- SCED 558 Using Writing as a Learning Tool in the Secondary School (3)  
EDUC 661 Responding to and Evaluating Writing (3)  
EDUC 663 Writing as Thinking (3)  
EDUC 665 Practicum in Writing Instruction (3)  
EDUC 785 Research in the Teaching of Writing (3)  
EDUC 761 Introduction to Research in Education (3)

#### Writing for the Mass Media (18 s.h.)

Nine to eighteen semester hours are selected from the courses listed below. If fewer than eighteen hours are selected from these courses, the remaining hours are chosen from the list of elective courses at the end of this section.

- MCOM 601 Media Writing (3)  
MCOM 603 Criticism in Mass Media (3)  
MCOM 670 Special Topics: Scripting for the Visual Media (3)  
Freelance Feature Writing (3)  
Advertising Copywriting (3)  
Corporate Communication Consulting (3)  
Investigative Reporting (3)  
MCOM 685 Seminar in Media Production: Publicity & Public Relations (3)  
MCOM 687 Seminar in Media Production: Newspapers (3)  
MCOM 695 Directed Readings in Mass Communication (3)  
MCOM 781 Internship in Journalism (3)  
MCOM 783 Internship in Public Relations (3)  
MCOM 785 Internship in Radio (3)  
MCOM 787 Internship in Television (3)  
MCOM 795 Independent Study in Mass Communication (3)

#### Scientific Writing (18 s.h.)

Nine hours of writing courses

- WRIT 702 Technical Writing (3)  
and  
six hours from

- WRIT 711 Managing A Professional Journal (3)  
WRIT 729 Consulting I: Improving Corporate Writing (3)  
WRIT 731 Writing for the Sciences (3)  
WRIT 795 Independent Study in Writing (3)

Nine hours of courses from the following departments: Biology, Chemistry, Computer Science, Mathematics, and Physics

#### Creative Writing (18 s.h.)

Nine to eighteen semester hours are selected from the courses listed below. If fewer than eighteen hours are selected from these courses, the remaining hours are chosen from the list of elective courses at the end of this section.

- WRIT 741 Theories of Creativity (3)  
WRIT 743 Writing the Non-Fiction Article (3)  
WRIT 745 Writing Biography (3)  
WRIT 747 Writing Poetry (3)  
WRIT 749 Playwriting (3)  
WRIT 751 Writing Short Fiction (3)  
WRIT 753 Writing the Novel (3)  
WRIT 798 Thesis in Creative Writing (6)

Electives: Up to three of the following courses may be elected by students to supplement their work in any special application except scientific writing.

- WRIT 701 Business Writing (3)  
WRIT 702 Technical Writing (3)  
WRIT 703 Design, Layout, and Production of Printed Matter (3)

- WRIT 705 Creativity in Non-Fiction Prose (3)  
 WRIT 707 Communication Management (3)  
 WRIT 709 The Grant Proposal (3)  
 WRIT 711 Managing the Professional Journal (3)  
 WRIT 714 Freelance Writing (3)  
 WRIT 723 Sociolinguistics (3)  
 WRIT 725 Strategies of Persuasion (3)  
 WRIT 729 Consulting I: Improving Corporate Writing (3)  
 WRIT 730 Writing Reviews (3)  
 WRIT 731 Writing for the Sciences (3)  
 WRIT 795 Independent Study in Writing (3)

3. Satisfactory completion of the written master's degree examination.

## PSYCHOLOGY

Degree: Master of Arts

Program Coordinators:

- Clinical Psychology — Barry A. Bass  
 Counseling — Anthony DiCesare  
 Experimental Psychology — Elizabeth Zoltan-Ford  
 School Psychology — Barbara R. Slater

The degree program offers the student the opportunity of in-depth specialization in one of four psychological areas. The areas are clinical psychology, counseling, experimental psychology and school psychology. Each is described below in detail with reference to objectives and requirements.

## CLINICAL PSYCHOLOGY

The area of clinical psychology aims primarily at training M.A.-level psychologists for employment in state and other nonprofit organizations. These psychologists will be able to provide services to patients and clients under the direct and continuing supervision of psychologists licensed by the State Board of Examiners of Psychologists and a medical staff. The program also seeks to prepare students for further graduate study in psychology.

### Admission Requirements:

1. Courses in the following areas:
  - a. General Psychology (3)
  - b. Abnormal Psychology (3)
  - c. Personality (3)
  - d. Behavioral Statistics (3)
  - e. Tests and Measurements (3)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined in paragraph 2 below:

2. Acceptable performance on the aptitude test of the Graduate Record examination
3. An interview with the coordinator of the clinical psychology area
4. A letter of recommendation
5. A minimum undergraduate GPA of 2.5 is required for conditional admission to the program.

### Degree Requirements:

1. Completion of required prerequisite courses

2. Plan A: Master of Arts with thesis (minimum 39 s.h.)

#### Required courses

- PSYC 631 Advanced Abnormal Psychology (3)  
 PSYC 620 Psychodiagnostics I: Intelligence (3)  
 PSYC 665 Psychotherapy and Behavior Change I (3)

- PSYC 666 Psychotherapy and Behavior Change II (3)  
 PSYC 653 Research Issues in School/Clinical Psychology (3)  
 PSYC 651 Techniques of Intervention (3)  
 PSYC 765 Personality Assessment in Clinical Psychology (3)  
 PSYC 766 Advanced Personality Assessment in Clinical Psychology (3)  
 PSYC 790 Seminar in Professional Psychology (3)  
 PSYC 697 Practicum in Clinical Psychology (3)  
 PSYC 752 Internship in School/Clinical Psychology (3)  
 PSYC 898 Thesis (3)

#### Electives

Three semester hours of courses are elected by the student from within or outside the field of psychology to complement the program of study. Prior written consent of the area coordinator must be obtained.

or

- Plan B: Master of Arts without thesis (minimum 39 s.h.)  
 Required courses are identical to those in plan A except for thesis.

#### Electives

Six semester hours.

NOTE: The internship carries with it a residency requirement of one semester. The student must be available for placement in a clinical setting.

3. Satisfactory completion of a written comprehensive examination.

## COUNSELING

The purpose of the counseling area is to develop professionally responsible individuals capable of facilitating a counselee's personal growth and development. He/she is trained to help the client explore educational, vocational and personal goals, and seeks to facilitate the counselee's development of a meaningful course of action in these areas. The training program requires an understanding of psychological principles and reflects professional practices and responsibilities consistent with current research findings. Students must demonstrate proficiency in two areas, and must successfully complete the master's degree examination to show that he/she is thoroughly grounded in those theoretical, research, and other academic competencies upon which successful counseling is based. Because counseling psychology is an applied field, the student must demonstrate the utilization of appropriate skills and techniques in helping actual clients to identify and to solve personal problems.

The objective is to facilitate knowledge of: (1) psychological, sociological, and cultural foundations of human development and behavior; (2) career development and occupational choice, (3) skills in the use of appraisal and measurement techniques, research methodology and statistics, (4) role and function of the school or community agency in which one plans to work as a counselor, (5) issues pertinent to the profession of counseling such as philosophical foundations, ethical standards, professional practice and inter-professional relationships, and (6) practitioner competence in observing and interpreting human behavior and facilitating behavioral change with individuals and groups.

The student must select a concentration in counseling from:

- elementary school counseling  
 secondary school counseling  
 career counseling  
 community counseling  
 rehabilitation counseling

**Admission Requirements:**

1. Courses in the following areas:
  - a. General Psychology (3)
  - b. Statistics (3)
  - c. Introduction to Tests and Measurements (3)
2. Additional Courses:
  - a. For students applying for elementary school counseling concentration: Child Psychology (3)
  - b. For students applying for secondary school counseling concentration: Adolescent Psychology (3)
  - c. For students applying for career counseling concentration: Child or Adolescent Psychology (3)
  - d. For students applying for community counseling concentration and rehabilitation counseling concentration: Abnormal Psychology (3)
3. A minimum undergraduate GPA of 2.5 is required for conditional admission to the program.

**Degree Requirements:**

1. Completion of required prerequisite courses
2. Required Core:

PSYC	615	Introduction to Research Methods in Counseling (3)
PSYC	605	Counseling Techniques (3)
PSYC	607	Applied Theories of Counseling (3)
PSYC	721	Group Counseling (3)

**3. Concentration Core (select one):****Elementary School Counseling**

- |      |     |  |
|------|-----|--|
| PSYC | 611 | Developmental Psychology (3)               |
| PSYC | 705 | Principles of Guidance (3)                 |
| PSYC | 706 | Introduction to Career Development (3)     |
| PSYC | 711 | Analysis of the Individual (3)             |
| PSYC | 727 | Use of Tests in Counseling (3)             |
| PSYC | 730 | Counseling the Elementary School Child (3) |
| PSYC | 745 | Counseling Practicum (6)                   |
|      |     | Elective or Thesis                         |

**Secondary School Counseling**

- |      |     |   |
|------|-----|---|
| PSYC | 609 | Counseling Psychology—Pre-Practicum (3) |
| PSYC | 611 | Developmental Psychology (3)            |
| PSYC | 705 | Principles of Guidance (3)              |
| PSYC | 706 | Introduction to Career Development (3)  |
| PSYC | 711 | Analysis of the Individual (3)          |
| PSYC | 727 | Use of Tests in Counseling (3)          |
| PSYC | 745 | Counseling Practicum (6)                |
|      |     | Elective or Thesis (3)                  |

**Career Counseling**

- |      |     |  |
|------|-----|--|
| PSYC | 705 | Principles of Guidance (3)                         |
| PSYC | 706 | Introduction to Career Development (3)             |
| PSYC | 707 | Information Service in Guidance and Counseling (3) |
| PSYC | 708 | Media in Career Education (3)                      |
| PSYC | 711 | Analysis of the Individual (3)                     |
| PSYC | 727 | Use of Tests in Counseling (3)                     |
| PSYC | 745 | Counseling Practicum (6)                           |
|      |     | Elective or Thesis (3)                             |

**Community Counseling**

- |      |     |   |
|------|-----|---|
| PSYC | 609 | Counseling Psychology—Pre-Practicum (3) |
| PSYC | 611 | Developmental Psychology (3)            |
| PSYC | 613 | Community Mental Health Counseling (3)  |
| PSYC | 631 | Advanced Abnormal Psychology (3)        |
| PSYC | 727 | Use of Tests in Counseling (3)          |
| PSYC | 745 | Counseling Practicum (6)                |
|      |     | Elective (3)                            |
|      |     | Elective or Thesis (3)                  |

**Rehabilitation Counseling**

- |      |     |   |
|------|-----|---|
| PSYC | 661 | Foundations of Rehabilitation Counseling (3)    |
| PSYC | 667 | Psychosocial Aspects of Disabilities (3)        |
| PSYC | 668 | Mental Aspects of Disability (3)                |
| PSYC | 693 | Internship in Rehabilitation Counseling (3)     |
| PSYC | 706 | Introduction to Career Development (3)          |
| PSYC | 727 | Use of Tests in Counseling (3)                  |
| PSYC | 745 | Counseling Practicum (6) Elective or Thesis (3) |

4. Satisfactory completion of a departmental candidacy examination and a written comprehensive examination are required.

Notes: Electives selected by the student must have prior written consent of the advisor and must be approved for the student's program of study.

Students who fulfill practicum requirements in a public school are expected to pay a fee to their on-site supervisors.

Students in the elementary and secondary school concentrations should be aware that the Maryland State Department of Education requires two years of successful teaching at the level of counseling certification.

**EXPERIMENTAL PSYCHOLOGY**

The purpose of the experimental psychology area is to educate students in the basic conceptual, methodological, theoretical and conceptual bases of psychology. The student also obtains a firm background in statistics. In addition a meaningful individualized program of electives may be pursued by taking courses in a number of different areas including experimental, physiological, clinical and computer science.

Students who complete this program will be prepared to pursue other advanced degrees in psychology in any specialty area, or compete for such positions as laboratory researcher, experimental designer, psychometrist, or community college instructor.

**Admission Requirements:**

1. Courses in the following areas:
  - a. Statistics (3)
  - b. Experimental Psychology (3)
  - c. Learning (3)
2. A minimum undergraduate GPA of 2.5 is required for conditional admission to the program.

**Degree Requirements:**

1. Core Program (29 or 32 s.h.)

PSYC	673	Advanced Experimental Psychology I (4) and
PSYC	674	Advanced Experimental Psychology II (4)
PSYC	675	Proseminar I (3)
PSYC	676	Proseminar II (3)
PSYC	677	Learning (3)
PSYC	679	Special Topics Seminar (3)
PSYC	687	Advanced Experimental Design I (3)
PSYC	688	Advanced Experimental Design II (3) or
PSYC	689	Multivariate Methods (3)
PSYC	898	Thesis (3) or (6)
2. Elective courses (7 or 10 s.h.)  
The student may choose any graduate elective at the 500- to 700-level.
3. Satisfactory completion of a written master's degree examination is required after nine hours of graduate work have been completed.

## SCHOOL PSYCHOLOGY

The area of school psychology offers a master's degree (33 semester hours and an internship) and a certificate of advanced study (30 semester hours and an internship) for holders of a master's degree in school psychology. Graduates are prepared for certification as school psychologists in Maryland and a number of other states. Because of the broad application of skills, students usually are prepared to serve as M.A. level psychologists in a variety of nonprofit organizations. The program also prepares students for advanced graduate study in psychology.

### Admission Requirements:

1. Courses in the following areas: (total 18 s.h.)
  - a. Behavioral Statistics (3)
  - b. Abnormal Psychology (3)
  - c. Personality (3)
  - d. Tests and Measurements (3)
  - e. Human Growth and Development — 3 semester hours selected from the following:
    - 1) Infancy and Childhood (3)
    - 2) Child Psychology (3)
    - 3) Adolescent Psychology (3)
    - 4) Human Development (3)
  - f. Educational Psychology (3)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree. They must be completed prior to initiation of course work for the degree.

2. Acceptable performance on the aptitude test of the Graduate Record Examination or competency for graduate study as evidenced through successful completion of a minimum of fifteen hours of graduate work in psychology with at least a 3.0 average.
3. A satisfactory interview with the coordinator of the school psychology area.
4. Two letters of recommendation attesting to the applicant's possession of personal characteristics intrinsic to sound interpersonal skills.

### Degree Requirements:

1. Completion of required prerequisite courses.
2. Plan A: Master of Arts with thesis (minimum 33 s.h.)
  - a. Required courses
    - PSYC 651 Techniques of Intervention (3)
    - PSYC 620 Psychodiagnostics I: Intelligence (3)
    - PSYC 761 Psychodiagnostics II: Personality Evaluation (3)
    - PSYC 763 Psychodiagnostics III: Consultation (3)
    - PSYC 611 Developmental Psychology (3)
    - PSYC 655 Learning Disabilities I: Assessment (3)
    - PSYC 653 Research Issues in School/Clinical Psychology (3)
    - PSYC 603 Human Learning (3)
    - PSYC 771 Practicum in Psychodiagnostic Evaluation (3)
    - PSYC 752 Internship in School/Clinical Psychology (3)
    - PSYC 898 Thesis (3)

or

Plan B: Master of Arts with thesis (minimum 33 s.h.)

- a. Required courses are identical to Plan A except for thesis.
- b. A three credit elective replaces the thesis.
3. Successful completion of a departmental candidacy examination and a written comprehensive examination.

## CERTIFICATE OF ADVANCED STUDY IN SCHOOL PSYCHOLOGY

### Admission Requirements:

1. Possession of a master's degree in school psychology from a regionally accredited college/university
2. Demonstration that the applicant meets all of the curricular requirements for certification as a school psychologist in Maryland
3. Three letters of recommendation attesting to the applicant's basic competencies in performing the duties of a school psychologist and to the possession of personal characteristics intrinsic to sound interpersonal skills

### Certificate Requirements:

1. Required courses (30 s.h.)

PSYC 657	Learning Disabilities II: Remediation (3)
PSYC 703	Preschool Assessment (3)
PSYC 733	Assessment and Treatment of Exceptional Children (3)
PSYC 625	Behavioral Techniques (3)
PSYC 731	Administrative and Curricular Aspects of School Environments (3)
PSYC 790	Seminar in Professional Psychology (3)
PSYC 773	Practicum in Intervention Techniques (3)
* PSYC 752	Internship in School/Clinical Psychology (3)
	Electives (6)

### 2. A written comprehensive examination.

- \* The internship requires full-time placement in a school setting. Completed experience may be considered at the time of program entry. If the requirement has been met, an additional elective may be added to the program of study.

## READING

Degree: Master of Education

Program Coordinator: Joseph Gutkoska

The degree program is offered in cooperation with Morgan State University. The major objective of the program is to offer experiences which will improve the teaching of reading at all levels. The program is designed to assist the student to: (1) gain a better understanding of the learner and the learning process; (2) conduct an intensive diagnostic analysis of needs relevant to reading and language arts; (3) prescribe and/or conduct a program to overcome the weaknesses noted in the evaluation; (4) become a reading resource teacher; (5) fulfill a leadership role which will involve such activities as conducting in-service workshops and supervising various aspects of the reading program; (6) initiate and conduct research studies in reading and relevant areas.

### Admission Requirements:

1. A 3.0 undergraduate average is required for full admission.
2. A 2.3 undergraduate average is required for conditional admission.

### Degree Requirements:

1. Course Requirements (minimum 33 s.h.)
  - a. Required reading courses (12 s.h.)

"M" indicates courses offered at Morgan State University

EDUC 623	Methods and Materials in Teaching Reading in Elementary School (3)
EDUC 621	Reading Disabilities (3)
EDUC 626	Clinic Practicum in Reading (3)
EDUC 729	Seminar in Reading (3)
M EDUC 507	Seminar in Reading (3)

- b. Additional required courses (12 s.h.)
  - EDUC* 601 Educational Ideas in Historical Perspective (3)
  - PSYC* 611 Developmental Psychology (3)
  - PSYC* 511 Tests and Measurements (3) or  
*EDUC* 614 Educational Tests and Measurements (3)
  - PSYC* 640 Mental Hygiene in Education (3)
- c. Elective Courses (9 s.h.)
  - M ENGL* 516 Introduction to Linguistics (3)
  - M EDUC* 516 Children's Literature (3) or  
*EDUC* 516 Children's Literature (3) or  
*EDUC* 518 Literature for the Adolescent (3)
  - EDUC* 622 Corrective Reading (3)
  - EDUC* 625 Methods and Materials for Teaching Reading in Higher Education (3)
  - EDUC* 628 Diagnosis and Evaluation of Reading Disabilities (3)
  - EDUC* 726 Advanced Clinic Practicum in Reading (3)
  - ELED* 611 Reading and Other Language Arts in the Elementary School—Advanced
  - ELED* 613 Psycholinguistics and Reading Instruction (3)
  - ELED* 621 Diagnosis and Prescription for Learning Difficulties (3)
  - ELED* 631 Educating the Gifted (3)
  - ELED* 637 Mainstreaming for the Classroom Teacher (3)
  - ELED* 648 Individualizing Instruction in the Elementary School (3)

NOTE: Other elective courses may be substituted with the permission of the program coordinator.

2. Successful completion of the written master's degree examination is required.

## SECONDARY EDUCATION

Degree: Master of Education

Program Coordinator: Margaret Kiley

The degree program offers the student an opportunity for in-depth study in one of three areas: Education, which offers a number of curricular patterns (administration and supervision, special learners, teaching strategies, adult education, community college); Social Restoration Education; and an 18 hour subject concentration in modern languages (French or Spanish), geography, health science, physical education, or reading.

### Admission Requirements:

1. Certification as a secondary public school teacher

or

Courses in the following areas:

- a. Educational Psychology or Human Growth and Development
- b. Principles and Secondary Education
- c. Methods in Secondary Education in a specific subject field
- d. Three hours in:
  - History of Education
  - Foundations of Education
  - Philosophy of Education
- 2. For concentrations in the teaching specialization area:
  - a. Economic Education
    - Major or minor in economic education or the equivalent in related courses.
    - Approval by the graduate advisor in economic education
  - b. Geography
    - Major or minor in geography, or the equivalent in related courses and/or professional experience.

- c. Health
  - Major in health education or health science, or a minimum of 24 semester hours of course work in health education and related sciences.
- d. French or Spanish
  - Major in French or Spanish or a minimum of 18 semester hours of course work in French or Spanish. At least 12 semester hours must be upper division courses.
- e. Physical Education
  - A minimum of 24 semester hours in Physical Education
  - Approval by a screening committee composed of graduate faculty in Physical Education.

### Degree Requirements:

#### 1. Education

Thesis Plan (minimum 30 s.h.)

##### a. Required courses (15 s.h.)

Twelve semester hours in education:

- EDUC* 601 Educational Ideas in Historical Perspective (3)
- SCED* 741 Curriculum Development in the Secondary School (3)
- EDUC* 761 Introduction to Research in Education (3)
- SCED* 898 Master's Thesis in Secondary Education (3)

Three semester hours in psychology:

- PSYC* 611 Developmental Psychology (3)

- b. Elective courses (15 s.h.). At least six s.h. must be selected from courses numbered 600 to 799. All electives will be planned in terms of the needs and goals of the individual student and must be approved by the advisor.

From six to nine hours in education and six to nine hours outside of education will be selected by the student in consultation with the advisor. Students whose professional goals necessitate 15 hours to be completed within education must secure written approval from the coordinator.

Non-Thesis Plan (minimum 33 s.h.)

##### c. Required courses (15 s.h.)

Twelve semester hours in education

- EDUC* 601 Educational Ideas in Historical Perspective (3)
- SCED* 741 Curriculum Development in the Secondary School (3)
- EDUC* 761 Introduction to Research in Education (3)
- SCED* 781 Research Seminar in Secondary and Adult Education (3)

Three semester hours in psychology

- PSYC* 611 Developmental Psychology (3)

- d. Elective courses (18 s.h.). At least nine s.h. must be selected from courses numbered 600 to 799. All electives are planned in terms of the needs and goals of the individual student and must be approved by the advisor.

From six to twelve hours in education and from six to twelve hours outside education will be selected by the student in consultation with the advisor. Students whose professional goals necessitate 18 hours within education must secure written approval from the coordinator.

#### 2. Teaching Specialization

Thesis Plan (minimum 33 s.h.)

- a. Required courses are identical to those in the education area (thesis plan). Students in the physical education concentration may substitute PHEC 609, Psychology of Motor Learning, for PSVC 611, Developmental Psychology.
- b. Elective courses (18 s.h.). Must include a minimum of nine s.h. at the 600 to 700 level.

#### Non-Thesis Plan (minimum 36 s.h.)

- a. Required courses are identical to those in 1. (above) (non-Thesis Plan). Students in the physical education concentration may substitute PHEC 609, Psychology of Motor Learning, for PSYC 611 Developmental Psychology.
- b. Elective Courses (21 s.h.). Must include a minimum of 12 s.h. at the 600 to 700 level. At least three s.h. must be in education.

#### 3. Social Restoration Education

##### Non-Thesis only

(minimum 36 s.h., 27 of which must be at the 600-700 levels)

- a. Required courses (24-27 s.h.)

EDUC 601 Educational Ideas in Historical Perspective (3)  
EDUC 761 Introduction to Research in Education (3)  
SCED 611 Learning Disabilities of Adolescents and Adults (3)  
SCED 647 The Teaching Process: Secondary (3)  
SCED 781 Research Seminar in Secondary and Adult Education (3)  
PSYC 640 Mental Hygiene in Education (3)  
SCED 741 Curriculum Development in the Secondary School (3)  
EDUC 797 Internship in Education

(36 s.h. depending upon teaching experience). The internship may be waived and other credits substituted if the student has two years of successful teaching experience in an institution of social restoration.

- b. Elective courses (12-15 s.h.)

Courses in psychology, sociology and education may be selected with approval of the advisor.

#### 4. Students in all specializations must successfully complete the written master's degree examination.

## SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

Degree: Master of Science

Program Coordinator: Joyce Schwartz Reitzel

The degree program is designed to enable pre-professionals in the field, e.g., those with a bachelor's degree in speech-language pathology and audiology, to meet the academic and clinical practicum requirements of the national and state speech-language and hearing associations. The speech-language pathology and audiology program provides the student with (1) an in-depth investigation of specific disorders of speech, language and hearing; (2) intensive study of normal speech and language development; (3) development of appropriate therapeutic goals, procedures, and materials; (4) and extensive clinical practice experience in on-campus and off-campus settings with a variety of clinical cases.

Students elect to specialize in either speech-language pathology or audiology. Applicants indicate their area of emphasis on the application form.

Completion of the degree prepares the individual to meet academic and practicum requirements for certification and licensure to compete for employment in public school, clinical, or hospital settings, and to pursue advanced degrees in this field. All clinical practicum clock hour requirements of ASHA must be completed before the M.S. degree is awarded.

Individuals without an undergraduate degree in speech-language pathology and audiology must complete 33 s.h. of undergraduate course work from designated prerequisite courses prior to applying for admission to the master of science program.

#### Admission Requirements:

1. Bachelor's degree in speech-language pathology and audiology with a minimum of 33 semester hours or 42 quarter hours. A minimum of one course in clinical practicum is required

(students without this course take it as a part of their graduate program, necessitating a 39 semester hour degree program).

OR

2. Completion of 33 semester hours of undergraduate coursework in speech-language pathology and audiology, including the following courses or their equivalents:

SPPA 105 Speech and Language Development (3)  
SPPA 210 Phonetics of American English (3)  
SPPA 300 Anatomy and Physiology of the Auditory and Vocal Mechanisms (3)  
SPPA 310 Hearing and Speech Science (3)  
SPPA 302 Speech Pathology I (3)  
SPPA 304 Speech Pathology II (3)  
SPPA 305 Stuttering Etiology and Therapy (3)  
SPPA 306 Speech Pathology III (3)  
SPPA 321 Introduction to Audiology (3)  
SPPA 486 Clinical Observation and Techniques (3)  
SPPA 487 Clinical Practice I (3)

3. Acceptable evaluation by three persons familiar with the applicant's scholarly and clinical work and aptitude. Evaluations should come from the applicant's former instructors and/or clinical supervisors. Evaluations must be completed on the speech-language pathology and audiology rating form, which may be obtained by calling or writing to the department.

4. Acceptable performance on the Miller Analogies Test.

#### Degree Requirements:

1. Speech-language pathology specialization (36 s.h., 27 of which must be at the 600-800 levels)

- a. Required courses (3)

SPPA 613 Research Design Seminar in Speech/Language Pathology and Audiology (1)  
SPPA 745 Advanced Clinical Practice (2)

Taken one s.h. every semester in which any practicum assignment is made until all clinical clock hours are completed. Only two semester hours apply toward the degree.

- b. Speech/language sequence (21 s.h.)

Speech and speech pathologies (9 s.h.)

Courses which deal with nature and development of speech processes and/or with the nature, development, etiology, and treatment of speech pathologies

Language and Language Pathologies (9 s.h.)

Courses which deal with the nature and development of language processes and/or language pathologies

The remaining three semester hours may be taken in either area.

- c. Audiology sequence (6 s.h.)

One auditory disorders course (3 s.h.) and one aural habilitation course

- d. Non-major/minor sequence (6 s.h.)

Courses outside the areas of speech-language pathology and audiology. Specific courses and areas must be approved by the advisor, and may include such areas as speech/hearing sciences, experimental phonetics, psychology, education, linguistic, and physics, among others. At least one of these courses must be at the 600-800 level.

OR

Audiology specialization (36 s.h., 27 of which must be at the 600-800 levels)

- a. Required courses (3 s.h.)

SPPA 613 Introduction to Research in Speech Pathology and Audiology (1)

SPPA 745 Advanced Clinical Practice (2)

Taken one s.h. every semester in which any practicum assignment is made until all clinical clock hours are completed. Only two semester hours apply toward the degree.

b. Audiology sequence (21 s.h.)

Auditory disorders (9 s.h.)

Courses which deal with Aural habilitation/rehabilitation (6 s.h.)

Instrumentation (3 s.h.)

c. Speech/Language Sequence (6 s.h.)

One course (3 s.h.) which deals with the nature, development, etiology, diagnosis and treatment of language disorders.

One course (3 s.h.) which deals with the nature, development, etiology, diagnosis and treatment of speech disorders.

d. Non-major/minor sequence (3 s.h.)

The student must elect six semester hours from courses outside the areas of speech pathology and audiology. Specific courses and areas must be approved by the advisor, and may include such areas as speech/hearing sciences, experimental phonetics, psychology, education, physics, and geography among others. At least one of these courses must be at the 600-800 level.

2. Successful completion of the written master's degree examination.

3. Students must demonstrate acceptable writing skills in all clinical and academic work. Students showing weakness in this area may be advised to take SPPA 311 (Technical Writing in SPPA) in addition to their degree work.

## VISUAL ARTS

Degree: Master of Fine Arts

Program Coordinator: Thomas Supensky

The degree program is designed to meet the needs of those who wish to pursue the study of art professionally, either for a career as an artist or as a college level art teacher.

### Admission Requirements:

1. A baccalaureate degree, preferably in art.
2. A letter of intent
3. Two letters of recommendation
4. A portfolio of work

### Degree Requirements:

1. Completion of 60 semester hours of degree work.

MFA Seminar — 3 s.h.

Art History — 9 s.h.

Art Courses (area of study) — 24 s.h. selected with consent of advisor from 600 and 700 level art studio courses

Elective Art Courses — 6 s.h. selected with consent of advisor from approved graduate art courses.

An M.F.A. Project, in the form of an exhibition, supported by a paper — 6 s.h. of ART 896 M.F.A. Project  
Electives — 12 s.h. selected with consent of advisor from any discipline.

2. Successful completion of the written master's degree examination taken in the last semester of degree work.

## COOPERATIVE M.ED. PROGRAMS WITH AN EMPHASIS IN JEWISH STUDIES

Towson State University, in cooperation with the Baltimore Hebrew College, offers a Jewish studies specialization within the early childhood education and elementary education M.Ed. programs. The student takes 12 semester hours of required courses at the Baltimore Hebrew College and 24 semester hours in the appropriate departmental program at Towson State University. Further information may be obtained by calling the graduate office at Towson State University (301—321-2500) or the graduate office at the Baltimore Hebrew College (301—466-7900, x312).

## SPECIALIST CERTIFICATES

The post-baccalaureate student in early childhood education, elementary education or secondary education may select a 15 s.h. component of the program which culminates in the awarding of a specialist certificate in one of the following areas:

### Early Childhood Education —

Children With Special Needs

### Elementary Education

Administration and Supervision of Elementary and Middle Schools

Curriculum Development

Educating the Gifted

The Exceptional Child in the Elementary School

Reading

### Secondary Education

Adult Education

The Community College

The Exceptional Adolescent in the Secondary School

Teaching the Gifted in the Secondary School

Educational Evaluation

Secondary School Reading

Secondary Supervision/Administration

Secondary Teaching Strategies and Classroom Management

Teaching in the Middle School

Students must meet the same requirements and will follow the same procedure as for admission to the degree program. Programs for the specialist certificate are developed with the students advisor and approved by the graduate program coordinator.

# COURSE DESCRIPTIONS

Descriptions of 500-800-level courses are listed in this section. Consult the course schedules to determine the courses offered in a particular session.

Two semester courses, the numbers of which are separated by a hyphen, are to be taken in sequence.

## ACCOUNTING

Chairperson: Raymond J. Castaldi

### ACCOUNTING COURSES (ACCT)

**ACCT 525 BUSINESS LAW I (3)** The function of the law with particular attention to contracts, agency, sales, commercial paper, personal property, and real property.

**ACCT 601 FINANCIAL ACCOUNTING FOR NON-ACCOUNTANTS (3)** Basic postulates, principles and assumptions of financial accounting. Includes review of GAAP, external reporting and non-profit accounting. Prerequisites: A non-accounting degree and admission to the graduate program or permission of the chairman of the Accounting Department.

**ACCT 701 MANAGERIAL ACCOUNTING FOR NON-ACCOUNTANTS (3)** Principles and techniques underlying managerial accounting. Techniques of standard costing and principles of valuation applicable to internal use of accounting information. Prerequisites: ACCT 601, admission to the graduate program or permission of the Accounting Department Chairperson.

## ADULT EDUCATION

### ADULT EDUCATION COURSES (ADED)

**ADED 585 ADULT EDUCATION (3)** Introduction to the historical and philosophical evolution of adult education in the United States in relationships to current aims, types of programs, and issues. Prerequisite: Consent of instructor.

**ADED 587 TEACHING THE ADULT LEARNER (3)** Teaching-learning activities at various levels of adult education. The needs, motivation, and abilities of the adult learner are stressed. Prerequisite: Consent of instructor.

## ANTHROPOLOGY

Chairperson: Irwin Goldberg

### ANTHROPOLOGY COURSES (ANTH)

**ANTH 501 ANTHROPOLOGICAL THEORY (3)** Survey of the theoretical contributions made by American, British and Continental anthropologists. Prerequisites: ANTH 207 plus nine hours of Anthropology.

**ANTH 521 SEX ROLES IN CROSS CULTURAL PERSPECTIVE (3)** Materials from a variety of cultures will be used to illustrate and analyze the roles of women and men within the major institutional aspects—the family, economics, politics and religion. Particular attention will be devoted to the similarities and differences in sex role patterns within and between the cultures. Prerequisite: SOCI 101 or ANTH 207.

**ANTH 530-539 TOPICS IN ANTHROPOLOGY (3)** An examination of current topics in Anthropology designed for non-majors as well as majors. The content of the course will depend upon mutual faculty and student interest. Prerequisite: ANTH 207.

**ANTH 546 WEALTH, POWER & POLITICS IN CROSSTCULTURAL PERSPECTIVE (3)** Political systems and the distribution of power

in egalitarian, ranked, and stratified societies will be examined. Prerequisite: SOCI 101 or ANTH 207.

**ANTH 564 RELIGION, MAGIC AND WITCHCRAFT (3)** The world view, beliefs and rituals of selected non-literate peoples considered with reference to religion as a universal category of human culture. Prerequisite: ANTH 207.

**ANTH 565 NORTH AMERICAN INDIANS (3)** The traditional culture of native North Americans and their socio-cultural place in modern American society will be examined. Prerequisite: ANTH 207.

**ANTH 566 SOUTH AMERICAN INDIANS (3)** Survey of the cultures of the native peoples of South America in Pre-Columbian times and the situation of contemporary tribal peoples of South America. Prerequisite: ANTH 207.

**ANTH 567 PEOPLES OF THE MIDDLE EAST (3)** Survey of the Middle East as a cultural area with emphasis on culture change. Prerequisite: ANTH 207.

**ANTH 569 TRADITION AND REVOLUTION IN LATIN AMERICAN SOCIETY (3)** An anthropological perspective will be brought to bear on contemporary Latin American culture and society. The Pre-Columbian heritage, the traditional synthesis and the struggle to modernize and develop will be examined. Prerequisites: SOCI 101, ANTH 207 or ANTH 208.

**ANTH 570-579 SPECIAL TOPICS IN ANTHROPOLOGY (3)** An examination of current topics in Anthropology designed for junior and senior majors. The content of the course will depend upon mutual faculty and student interest. Prerequisites: ANTH 207 and six additional hours of Anthropology.

**ANTH 581 ARCHAEOLOGICAL METHODS AND THEORY (3)** Methods of excavating and recording archaeological data. Investigation of problems of current research interest. Prerequisite: ANTH 207.

**ANTH 583 NORTH AMERICAN ARCHAEOLOGY (3)** Regional survey of the prehistory of native North American cultures. Prerequisites: ANTH 207 or ANTH 208.

**ANTH 585 ARCHAEOLOGY OF THE AMERICAN SOUTHWEST (3)** An examination of the evidence of pre-historic cultures of the Southwest: Anasazi, Hohokam, and Mongollon. Detailed description and interpretation of the remains. Prerequisites: ANTH 207 or ANTH 208 and consent of instructor.

**ANTH 588 PEASANT CULTURES (3)** The course will focus on the rural agricultural population of modern states, their traditional lifeways and the changes being wrought by modernization. Prerequisites: SOCI 101 or ANTH 207.

**ANTH 591-592 PRACTICUM IN ANTHROPOLOGY I, II (3, 3)** Supervised experience in work setting which facilitates understanding of rules and relationships relevant to anthropological inquiry and application of anthropological knowledge. While opportunities to do anthropologically oriented fieldwork in the community will usually be available, placement in agencies dedicated to anthropological inquiry may not always be possible. Students may elect to take one semester for 3 credits (591) or two semesters for 3 credits each (591-592), in one agency for both semesters or in a different agency each semester. No more than three credits may be earned in a semester save with consent of the chair which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: Concentration in anthropology; junior standing and consent of practicum coordinator.

**ANTH 595 INDEPENDENT RESEARCH (3)** Supervised research and anthropological investigation leading to preparation of a research project or a supervised field experience. For senior students with a concentration in anthropology. Prerequisites: At least 12 credits in ANTH and consent of department chair.

# ART

Chairperson: James W. Flood

Graduate Departmental Coordinator,

Art Education Program: Jane Bates

Graduate Departmental Coordinator, MFA Program: Thomas Supensky

## ART COURSES (Art and Art Education)

### ART

**ART 500 CERAMIC RAW MATERIALS (3)** Lecture and laboratory investigation of ceramic materials as they apply to glazes, clay slips and clay bodies. Tests and problems in ceramic raw materials. Prerequisite: ART 331 or equivalent.

**ART 505 ART PRINCIPLES AND CRITICISM (3)** Principal concepts of art; theories of perception of aesthetics; application of theories to the interpretation of specific works of art. Prerequisites: ART 105 or ART 121 or ART 122.

**ART 508 ADVANCED CERAMICS (3)** Individually designed studio problems for advanced students in ceramics. Prerequisite: ART 331 or ART 332 or consent of instructor.

**ART 513 ENAMELING II (3)** Continued studio experience in enameling. Emphasis on advanced techniques of cloisonne, plique-ajour, independent work, and personal experience are encouraged. Taught concurrently with ART 314. Prerequisite: ART 314.

**ART 514 ADVANCED STUDIO (2-3)** Independent work for advanced students in field of special interest. Prerequisites: Must have exhausted other courses in particular field or written consent of instructor. Student must make arrangements in advance of registration with instructor of choice.

**ART 515 ADVANCED STUDIO (2-3)** Independent work for advanced students in field of special interest. Prerequisites: Must have exhausted other courses in particular field or written consent of instructor. Student must make arrangements in advance of registration with instructor of choice.

**ART 516 ADVANCED STUDIO (2-3)** Independent work for advanced students in field of special interest. Prerequisites: Must have exhausted other courses in particular field or written consent of instructor. Student must make arrangements in advance of registration with instructor of choice.

**ART 518 JEWELRY II (3)** Continued studio experiences in jewelry. Directed studio problems in the techniques of casting, fabrication, raising, forging, stone setting, with an emphasis on independent work and personal experience. Prerequisite: ART 318.

**ART 519 METALSMITHING (3)** Lecture, demonstration, and directed studio problems in raising, forging, joining, and finishing various metals with emphasis on design and creation of hollowware and flatware. The historic and aesthetic aspects of the media are considered. Prerequisite: ART 318.

**ART 521 DESIGN FOR VISUAL COMMUNICATION II (3)** Continued studio in drawing, painting and typography. Advanced assignments in preparing brochures—booklets—for commercial printing. Prerequisites: ART 225 or consent of instructor.

**ART 523 PICASSO TO THE PRESENT (3)** Art history with emphasis on painting from 1900 to the present. Slide lectures, directed readings and museum trips. Prerequisites: ART 121 and ART 122.

**ART 524 HENRY MOORE TO THE PRESENT (3)** Art history with emphasis on sculpture from 1900 to the present including new media and happenings. Directed readings and museum trips. Prerequisites: ART 121 and ART 122.

**ART 525 FRANK LLOYD WRIGHT TO THE PRESENT (3)** Art history with emphasis on architecture from 1900 to the present including time-space concepts. Prerequisites: ART 121 and ART 122.

**ART 528 WEAVING II (3)** Continued studio experience in weaving. Further investigation into a variety of weaves on various warp threadings with experimentation into color, fiber, and woven forms. Prerequisite: ART 328.

**ART 529 ADVANCED PAINTING: OILS (3)** Individually selected studio problems in oils and related media for advanced students in area of special interest. Prerequisite: ART 329.

**ART 530 ADVANCED PAINTING: WATERCOLOR (3)** Individually selected studio problems in watercolor and related media for advanced students in area of special interest. Prerequisite: ART 330.

**ART 534 PHOTOGRAPHY II (3)** Continued research with the photographic aesthetic. Emphasis on independent investigation. Student must have camera with adjustable diaphragm and shutter. Prerequisite: ART 234 or written consent of the instructor based on demonstration of technical competence.

**ART 535 COLOR PHOTOGRAPHY I (3)** An investigation into the use of color and form in still photography through the use of positive and negative transparencies. Prerequisites: ART 234 and ART 334 or equivalent.

**ART 539 METAL SCULPTURE II (3)** Continued lecture and directed studio problems in direct or cast metal sculpture. Prerequisite: ART 339.

**ART 540 SCULPTURE: MODELING STUDIO III (3)** Continued studio experience in modeling with the opportunity for advanced students to develop interests in specialized areas. Prerequisite: ART 340.

**ART 542 SCULPTURE: CARVING STUDIO III (3)** Continued studio experience in carving; individually selected studio problems in area of special interest. Prerequisite: ART 342.

**ART 544 BYZANTINE TO GOTHIC ART (3)** Studies in architecture, the decorative arts and sculpture, slide lectures, readings and museum visits. Prerequisite: ART 121.

**ART 545 ITALIAN RENAISSANCE ART: 15th-16th CENTURIES (3)** Studies in architecture, painting and sculpture, slide lectures, readings and museum visits. Prerequisite: ART 122.

**ART 547 SCREEN PROCESS II (3)** Personal expression in screen printing. Continued expression including photo techniques and advanced color printing. Prerequisite: ART 347 or consent of instructor.

**ART 549 RELIEF PROCESS II (3)** Personal expression in relief printing; photo techniques and advance color printing. Prerequisite: ART 349 or consent of instructor.

**ART 550 INTAGLIO PROCESS II (3)** Personal expression in printmaking. Etching aquatint; photo engraving, etc. Prerequisite: ART 449 or consent of instructor.

**ART 553 LITHOGRAPHIC PROCESS II (3)** Personal expression; advanced printing including stone-plate and photo plate. Multiple color printing. Prerequisite: ART 451 or consent of instructor.

**ART 561 INTRODUCTION TO ART THERAPY I (3)** A survey of the concepts and procedures of creative expression in the service of personal understanding and development. Consideration of educational, rehabilitatory and psychiatric settings. Lectures, discussions, workshops, and readings. Prerequisite: At least junior standing as a major in Art, Psychology, Health, Mental Health or associated fields. Approved work experience in one of the above fields may be substituted. (Offered evening only)

**ART 562 INTRODUCTION TO ART THERAPY II (3)** Continuation of Art Therapy I, the work of the therapist. Case studies, observations and participation in a variety of settings. Discussion, field work and readings. Prerequisite: ART 461 or consent of instructor. (Offered spring semester evening only)

**ART 571 ART AND ARCHITECTURE OF ANCIENT GREECE (3)**

The period will extend from the Geometric and Archaic Periods until the close of the Hellenistic Period, with studies in architecture, city planning, the decorative arts and sculpture, slide lecture. Prerequisite: ART 221.

**ART 572 ART AND ARCHITECTURE OF THE ROMAN EMPIRE (3)**

The period will extend from the Republican Era through the reign of Constantine the Great, A.D. 337, with studies in architecture, city planning, the decorative arts and sculpture, with slide lectures and museum visits. Prerequisite: ART 221.

**ART 573 ILLUSTRATION II (3)**

Continued studio experience in illustration. Developing personal approaches in various media. Emphasis on practicing professional assignments and portfolio preparation. Prerequisite: ART 373 or equivalent.

**ART 579 BAROQUE ART AND ARCHITECTURE (3)**

Studies in the formation of the Baroque style in Italy, and its dissemination in European architecture, painting and sculpture, with slide lectures, selected readings and museum visits. Prerequisite: ART 122.

**ART 580 EIGHTEENTH CENTURY ART AND ARCHITECTURE (3)**

The Rococo, Neo-Classical and Revival styles of the period will be studied and their diffusion in European architecture, painting and sculpture, with slide lectures, selected readings and museum visits. Prerequisite: ART 122.

**ART 585 SEMINAR IN ART HISTORY (3)**

Intensive analysis of a defined historical period or stylistic development in art. Directed reading in both period and contemporary sources. Discussions and museum tours. Variety in content each year, may be re-elected. Prerequisites: ART 121 and ART 122 or consent of instructor.

**ART 594 TRAVEL AND STUDY ABROAD (3-6)**

Countries and topics to be selected by the department and instructors sponsoring the program. For information, contact the Art Department early in the semester preceding the semester of travel study. Prerequisite: Consent of instructor and interview.

**ART 608 GRADUATE CERAMICS I (3)**

Advanced work in ceramic design and techniques of glazes, clay bodies, firing. Prerequisite: ART 331 or consent of instructor.

**ART 611 GRADUATE DRAWING I (3)**

Studio problems in expressive drawing. Prerequisite: ART 311 or consent of instructor.

**ART 614-615-616 GRADUATE STUDIO (2-3, 2-3, 2-3)**

Independent work for graduate students in field of special interest. Prerequisite: all courses in field completed, or written consent of instructor.

**ART 618 GRADUATE JEWELRY I (3)**

Studio problems in shell construction, stone setting and mechanical joinery. Prerequisite: ART 418 or consent of instructor.

**ART 620 GRADUATE GRAPHIC DESIGN I: TYPOGRAPHY (3)**

Studio problems in selected typeface areas. Classics to exotic computerized fonts will be compared. Prerequisite: ART 320 or consent of instructor.

**ART 626 GRADUATE FABRIC DESIGN: DYEING (3)**

Studio problems in batik, Katazome, shibori, plangi, tie-dye, stencil, and the direct application of dye on fabric. Prerequisite: ART 426.

**ART 627 GRADUATE FABRIC DESIGN: PRINTING (3)**

Studio problems in screen printing and/or block printing. Prerequisite: ART 427.

**ART 629 GRADUATE PAINTING I (3)**

Studio problems in painting; current trends, museum visits and lectures. Prerequisite: ART 329 or equivalent.

**ART 630 WATERCOLOR (3)**

Trends and outstanding painters and styles. Studio work, museum visits, lectures. Prerequisite: ART 330 or consent of instructor.

**ART 633 GRADUATE CERAMICS: SPECIAL PROCESSES (3)**

An in-depth exploration of techniques including moldmaking, casting, the use of engobes, clay bodies, lusters and decals. Minimester only.

**ART 634 GRADUATE PHOTOGRAPHY I (3)**

Studio problems emphasizing personal investigation of the photographic medium as an art form. Prerequisites: consent of instructor and ART 334.

**ART 640 GRADUATE SCULPTURE I (3)**

Studio problems in selected sculptural areas. Prerequisite: ART 340 or ART 241 or ART 339 or ART 342 or any 400-level course, or consent of instructor.

**ART 650 GRADUATE INTAGLIO, RELIEF I (3)**

Studio problems in intaglio and/or relief processes, including mixed media. Prerequisite: ART 349 or ART 449 or equivalent.

**ART 653 GRAPHICS: LITHOGRAPHY, SERIGRAPHY (3)**

Studio work for artists with knowledge of lithography and/or serigraphy. Prerequisite: ART 347 or ART 451 or equivalent.

**ART 673 GRADUATE ILLUSTRATIONS I (3)**

Studio problems in the concepts and techniques of objectives rendering, expressive painting and sequential imagery. Prerequisite: ART 463 or consent of instructor.

**ART 681 SEMINAR IN ART HISTORY (3)**

Research on an architect, artist or historical movement. Topic to be selected by instructor (may be repeated up to nine credits). Prerequisite: ART 485 or consent of instructor.

**ART 708 GRADUATE CERAMICS II (3)**

Problems in ceramic sawdust firing, advanced molding and terra sigillata. Prerequisite: ART 608 or consent of instructor.

**ART 711 GRADUATE DRAWING II (3)**

Studio problems in selected drawing areas: awareness, imagination, and craftsmanship. Prerequisite: ART 611.

**ART 715 MFA STUDIO I (3)**

Independent problems in art. May be repeated for additional credit with art advisor consent. Prerequisites: MFA status and written consent of art advisor.

**ART 718 GRADUATE JEWELRY II (3)**

Studio problems in advance shell construction and surface embellishment. Prerequisite: ART 618.

**ART 720 GRADUATE GRAPHICS DESIGN II: PORTFOLIO (3)**

Studio problems in professional portfolio presentation. Prerequisite: ART 620 or consent of instructor.

**ART 729 GRADUATE PAINTING II (3)**

Studio problems in selected painting areas: watercolor, oil and other media. Prerequisite: ART 629.

**ART 731 GRADUATE CERAMICS III (3)**

Studio problems in selected ceramic areas. Prerequisite: ART 708.

**ART 734 GRADUATE PHOTOGRAPHY II (3)**

Studio problems in selected areas of photography emphasizing personal investigation of mixed media. Prerequisite: ART 634.

**ART 740 GRADUATE SCULPTURE II (3)**

Studio problems in selected sculptural areas. Prerequisite: ART 640 or consent of instructor.

**ART 750 GRADUATE INTAGLIO, RELIEF II (3)**

Studio problems in selected printmaking areas: etching, drypoint, aquatint, photo engraving, embossing, collographs, woodcuts, linocuts, wood engraving, and subtractive relief. Prerequisite: ART 650.

**ART 770-779 SPECIAL TOPICS: ART HISTORY (3)**

Selected topics designed for independent research in art. Prerequisite: graduate standing and consent of art advisor.

**ART 781 GRADUATE ILLUSTRATION II (3)**

Studio problems in location drawing, figure and costume, experimental media, manuscript interpretation, and portfolio analysis. Prerequisite: ART 673.

**ART 783 M.F.A. SEMINAR (3)**

Lectures and discussions on the contemporary art scene, aesthetics, and art concepts. Oral and written

presentations, gallery/museum/studio visits included. Prerequisite: M.F.A. candidate.

**ART 785 M.F.A. STUDIO II (3)** Independent problems in art with special emphasis on preparation for M.F.A. project. Prerequisite: Must be taken concurrently with ART 896 M.F.A. project.

**ART 795 DIRECTED READING IN ART (3)** Extensive reading in an aspect of art. Prerequisite: Graduate standing and consent of art advisor.

**ART 896 M.F.A. PROJECT (6)** Preparation and installation of selected art works in an exhibition format as a final review for the M.F.A. degree. A written supportive paper defining the scope and philosophy of the work. Prerequisites: To be taken concurrently with ART 715 during final semester of the program.

**ART 897 GRADUATE PROJECT IN ART (3)** Exhibition of project plus a paper defining the project's scope and philosophy. Prerequisite: consent of department chairperson.

**ART 898 THESIS (3)** Original investigation in art, art education, art history or other approved area. Prerequisite: ARED 797.

#### **ART 899 THESIS CONTINUUM (1)**

#### **ART EDUCATION (ARED)**

**ARED 571 ADVANCED ART EDUCATION (3)** Art education problems at all levels; materials and skills in relation to classroom needs. Prerequisite: ARED 371 or equivalent.

**ARED 695 RESEARCH IN ART AND ART EDUCATION (3)** Methods of research applicable to art and art education. Preparation of research outline in area of choice. Prerequisite: consent of instructor.

**ARED 797 SEMINAR IN ART EDUCATION (3)** Investigation of problems and theories in art education and related fields. Prerequisite: ARED 695 and consent of instructor.

## **BIOLOGICAL SCIENCES**

Chairperson: Donald Windler

Graduate Departmental Coordinator: Biology Program: Donald C. Forester

#### **BIOLOGY COURSES (BIOL)**

**BIOL 501 GENETICS (4)** Introduction to genetics including Mendelian genetics, linkage and mapping, nucleic acid structure, replication and function, protein synthesis and the genetic code, mutation, gene regulation in bacteria and viruses, and population genetics. Laboratory includes work with Drosophila, fungi, bacteria and viruses. Average of three laboratory hours per week. Prerequisites: BIOL 110 or BIOL 201, CHEM 330 or CHEM 331 (may be taken concurrently).

**BIOL 502 GENERAL ECOLOGY (4)** Interrelationship between animals, plants and their natural environments, emphasizing the specific biomes available for study in Maryland. Individual projects will be required. Average of three laboratory hours per week. Prerequisites: BIOL 110 or 201, and either BIOL 202 or 205 or 207.

**BIOL 503 ADVANCED GENETICS (3)** Emphasis on the molecular basis of gene action. Discussion of current work and methods related to the problem of gene structure, function, and mutation including the translation and regulation of genetic information. Prerequisite: BIOL 401 or its equivalent.

**BIOL 504 ECOLOGICAL TECHNIQUES (3)** Lectures and readings on investigative techniques employed by ecologists in the various specialty fields. An individual investigation, laboratory or field, using appropriate equipment, is required. Prerequisite: BIOL 402 or its equivalent.

**BIOL 505 ELECTRON MICROSCOPY (4)** Theory, preparation, and application of the electron microscope, including light microscopy.

Average of three laboratory hours per week. Prerequisites: 12 hours of biology, PHYS 212 recommended, and consent of instructor.

**BIOL 506 LIMNOLOGY (4)** Physical, chemical, and biological factors that affect fresh-water organisms, and some of the standard methods used to analyze these factors. Average of two laboratory hours per week. Prerequisites: BIOL 205, BIOL 207, BIOL 402 is recommended, CHEM 102, PHYS 212.

**BIOL 507 INTRODUCTION TO PALEONTOLOGY (4)** Examination of major forms of life with the emphasis on appearances, diversification, and extinctions during the different geologic periods. Prerequisite: Minimum 10 credits in Biology.

**BIOL 508 CELL BIOLOGY (4)** The molecular and morphological organization of the cell in relationship to cellular activities with emphasis on eukaryotic cells. Average of three laboratory or discussion hours per week. Prerequisites: BIOL 207, BIOL 214 or BIOL 311; CHEM 330 or CHEM 331.

**BIOL 509 LIFE SCIENCES FOR THE ELEMENTARY TEACHER (3)** Living organisms in the environment, emphasizing modes of scientific inquiry and the utilization of living organisms in the classroom. Prerequisite: BIOL 110. Not for credit toward biology major, minor or M.S. degree in Biology.

**BIOL 510 ENVIRONMENTAL CONSERVATION (4)** Conservation practices and problems. Soil, water, forest, and wildlife resources with emphasis on interrelationships. Specialists in various phases of local, state, and federal conservation work conduct or assist in numerous field trips. Average of three laboratory hours per week. Prerequisites: BIOL 110 or 201 and 10 hours of Biology or a combination of 10 hours from biology, geography and physical sciences.

**BIOL 511 WILDLIFE BIOLOGY (4)** Important wildlife species with emphasis on aspects of research and management. Specific techniques and problems are studied in the field. Average of three hours per week in laboratory and field work. Prerequisite: BIOL 207.

**BIOL 513 EVOLUTION (3)** Concepts of biological evolution, the history of the development of these concepts, and current topics in evolutionary biology. Prerequisites: BIOL 202 and either BIOL 205 or 207.

**BIOL 515 MEDICAL MICROBIOLOGY (4)** Pathogenesis of bacterial, viral, rickettsial and fungal diseases with emphasis on medically important bacteria and microbiological techniques. Recommended for students pursuing a career in medical sciences. Prerequisites: BIOL 110 or BIOL 201; CHEM 102 or CHEM 106 (may be taken concurrently). Either this course or BIOL 318 but not both may count toward M.S. degree in Biology.

**BIOL 517 MICROTECHNIQUE (4)** Techniques used in preparation of plant and animal tissues for histological examination. Average of three laboratory hours per week. Prerequisites: BIOL 110 or BIOL 201. (CHEM 102 may be taken concurrently).

**BIOL 518 MICROBIOLOGY (4)** Biology of microorganisms with emphasis on bacteria. Microbial morphology, physiology and genetics and the role of microorganisms in natural processes and disease. Laboratory includes methods of observing, isolating and identifying bacteria. Average of three laboratory hours per week. Either this course or BIOL 315 but not both may count toward M.S. degree in Biology. Prerequisites: CHEM 330 or CHEM 331 (may be taken concurrently).

**BIOL 521 IMMUNOLOGY (3)** Fundamental principles of immunology with emphasis on the nature of antibodies and antigens, blood groups, antibody-antigen reactions, hypersensitivity, auto-immunization, tumor immunology, artificial grafting and the preparation of vaccines. Prerequisites: BIOL 315 or 318.

**BIOL 525 DISSECTION OF THE UPPER EXTREMITY (2)** Gross anatomical dissection of the human upper extremity including the muscles, nerves and blood vessels which supply the appendage.

Special emphasis will be placed on development of techniques which assure careful and accurate dissection. Will be offered only in the minimester. Prerequisites: BIOL 213 or 311 and Consent of instructor.

**BIOL 529 BIOANALYSIS (4)** Microscopic and biochemical methods used in determining major components and important contaminants of feeds, spices, stabilizers, adhesives, bakery materials, fats and oils, meat products, crystal mixtures, dairy products, etc. An average of two hours per week in laboratory and field work. Prerequisites: BIOL 110 or 201, CHEM 102 (may be taken concurrently).

**BIOL 530 HORTICULTURE (4)** Plant culture and application to developing desirable plantings on home grounds or in public places with examples of appropriate types of plants for specific situations. Average of three laboratory hours per week. Prerequisite: BIOL 205.

**BIOL 531 PLANT MORPHOLOGY (4)** A survey of the plant kingdom with emphases on evolutionary relationships, morphology, and life histories as affected by environmental conditions. A Saturday field trip may be required. Average of three laboratory hours per week. Prerequisite: BIOL 205.

**BIOL 532 VASCULAR PLANT TAXONOMY (4)** A study of the history and principles of vascular plant systematics with laboratory time devoted to collection and identification of plants in the local flora. An average of three laboratory hours per week. Prerequisites: BIOL 205, BIOL 331 or consent of instructor.

**BIOL 533 PLANT SPECIATION (3)** Race isolation, hybridity, polyploidy, apomixis, and self-compatibility as they influence the evolution of new populations. Prerequisite: BIOL 205.

**BIOL 535 PLANT ECOLOGY (4)** Environmental factors and processes which control plant distribution, plant communities, and vegetational biomes of North America. An average of 3 laboratory hours per week with 2 required 3-day weekend field trips and a Saturday field trip emphasizing examples from Maryland and the Mid-Atlantic States. Prerequisites: BIOL 202 and 205.

**BIOL 536 PLANT PHYSIOLOGY (4)** Life functions of plants as related to structure at all levels: cells, organs, and the complete organism. Consideration of the interaction of environmental and genetic factors on plant metabolism. Average of three laboratory hours per week. Prerequisites: BIOL 205 and CHEM 102, CHEM 330 recommended.

**BIOL 539 PLANT ANATOMY (4)** Origin and development of organs and tissue systems in vascular plants. Average of three laboratory hours per week. Prerequisite: BIOL 205.

**BIOL 541 PLANT PATHOLOGY (4)** Plant diseases, their symptoms, causal agents, etiology, epidemiology, prevention, and control. Average of three laboratory hours per week. Prerequisite: BIOL 205.

**0504.543 FRESH WATER ALGAE (4)** Systematics, structure, ecology, physiology, and life histories of fresh water algae. Laboratory will include methods of collection, culture, and experimental study of selected species. Prerequisites: BIOL 205, BIOL 331 recommended.

**BIOL 545 MYCOLOGY (4)** Morphology, classification, life histories, and economic applications of the fungi. Average of three laboratory hours per week. Prerequisite: BIOL 205.

**BIOL 549 MARINE BOTANY (4)** The ecology, physiology and identification of marine plants emphasizing the Chesapeake Bay and coastal areas of Maryland. Prerequisites: BIOL 347, BIOL 331 strongly recommended.

**BIOL 551 FIELD AND SYSTEMATIC VERTEBRATE ZOOLOGY (4)** Evolution, distribution, and definitive features of each class are studied comparatively. Extensive field and laboratory work deals

with morphological, taxonomic, ecological, and behavioral features of selected vertebrate groups and species. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 553 INVERTEBRATE ZOOLOGY (4)** Aquatic and terrestrial species of phyla from the Protozoa through the Echinodermata with special emphasis on local forms. Economic, ecological, and taxonomic considerations. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 556 ORNITHOLOGY (4)** Systematics, distribution, physiology, behavior and ecology of birds. Emphasis is on bird identification and techniques of studying birds in the field. Several early morning field trips are required. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 558 MAMMALOGY (4)** Evolution, comparative morphology, systematics, and distribution of mammals. Representative life histories are considered. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 560 HISTOLOGY (3)** Tissues of the vertebrate body. Average of two laboratory hours per week. Prerequisites: BIOL 311 or BIOL 214.

**BIOL 561 ENTOMOLOGY (4)** Laboratory and field course in insects. Identification and recognition of the more common families and orders, and a study of their structure, behavior, ecology, economic importance, and control. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 563 ANIMAL EMBRYOLOGY (4)** Developmental anatomy and the underlying principles involved in development. This last area will be approached from an experimental base. Average of three laboratory hours per week. Prerequisites: BIOL 214 or BIOL 311.

**BIOL 565 MAMMALIAN PHYSIOLOGY (4)** Organ systems of mammals with special emphasis on the human. Average of three laboratory hours per week. Prerequisites: BIOL 213, BIOL 214, or BIOL 311; and CHEM 102.

**BIOL 567 HERPETOLOGY (4)** Systematic survey of the modern reptiles and amphibians. Emphasis is placed on the evolution of morphological and behavioral traits which have enabled the reptiles and amphibians to successfully exploit their individual habitats. Laboratory includes systematic classification, student seminars and field work. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 568 ENDOCRINOLOGY (3)** Endocrine mechanisms regulating homeostasis and functional integrity of animals with emphasis on vertebrates. Prerequisites: BIOL 214 or BIOL 311, CHEM 102.

**BIOL 569 COMPARATIVE ANIMAL PHYSIOLOGY (4)** Functions, interactions, and regulation of organ systems in animals and their roles in sensory perception and integration, movement, oxygen utilization, energy procurement, temperature regulation, and water metabolism. Prerequisites: BIOL 207, CHEM 102.

**BIOL 571 ANIMAL BEHAVIOR (4)** Ethological approach to the comparative study of animal behavior. Major emphases are on the adaptive function of behavior and classification of behavioral mechanisms. Average of three laboratory hours per week. Prerequisite: BIOL 207.

**BIOL 581 BIOLOGICAL LITERATURE (3)** Familiarization with the literature of biology through the preparation of papers requiring a knowledge of techniques for exploring the literature. Three one-hour lectures per week. Not for major or minor credit or M.S. degree in Biology. Fulfills the advanced writing requirements. Prerequisites: ENGL 102 or 190, at least ten hours of Biology.

**BIOL 594 TRAVEL STUDY (1-3)** A detailed investigation of field oriented problems in biology away from the Towson State campus.

Locations and topics to be selected by the department and instructors sponsoring the program. May be repeated for a maximum of 3 credits. Prerequisite: BIOL 110 and consent of instructor.

**BIOL 601 CURRENT TOPICS IN BIOLOGY (3)** Current topics in a specific area of biology. The area will vary each time the course is offered. A maximum of three credits allowable for M.S. in Biology. Prerequisite: a suitable background in the area emphasized.

**BIOL 605 PROBLEMS IN BIOLOGY (1-3)** Laboratory or literature research on a particular problem of interest to the student that does not pertain to his/her thesis. Regular conferences with the instructor are required. A maximum of three credits allowable for MS degree in Biology.

**BIOL 607 PHYSIOLOGICAL ANIMAL ECOLOGY (4)** Physiological responses of animals to varying ecological conditions. Prerequisites: BIOL 462, BIOL 207.

**BIOL 609 AQUATIC BIOLOGY (4)** Local freshwater and brackish water plants and animals. Representative habitats considered comparatively, using methods of collecting and identifying species of the fauna and flora. Prerequisite: BIOL 406.

**BIOL 610 POPULATION AND COMMUNITY BIOLOGY (3)** Processes in biological populations, including population growth, competition, and predation, analyzed by the use of conceptual systems models and simple mathematical models. Prerequisite: BIOL 401, BIOL 402, BIOL 413, or equivalents.

**BIOL 611 BIOCHEMICAL GENETICS (3)** Biochemical basis of genetic phenomena, including duplication, expression, organization, and recombination of DNA. Prerequisites: BIOL 401 and CHEM 350 or consent of instructor.

**BIOL 613 ANIMAL COMMUNICATION (3)** Survey of visual, chemical, electromagnetic and acoustical systems which have evolved to facilitate information exchange between animals. Attention is focused on the sensory mechanisms employed during communication, as well as the adaptive significance of the message to the sender and the receiver. Prerequisite: A suitable background in animal biology and behavior.

**BIOL 615 PATHOGENIC MICROBIOLOGY (3)** Pathogenic bacteria and viruses, including virulence of causative agents, epidemiology, pathogenesis, diagnosis, prevention and treatment of representative bacterial and viral diseases. Prerequisites: BIOL 315 or BIOL 318; CHEM 330 or CHEM 332.

**BIOL 621 CELL REGULATION (3)** Regulation of cellular activities. Topics covered include regulation of enzyme synthesis and enzyme activity; membrane bound enzymes and carriers; activities regulated by cell surface receptors; experimental techniques used to obtain current knowledge in these areas. Prerequisites: BIOL 408; CHEM 350 or equivalent.

**BIOL 632 PLANT BIOSYSTEMATICS (4)** Techniques employed in the analysis of vascular plant life histories and species variation. Emphasis on local flora. Prerequisite: BIOL 331; BIOL 432 recommended.

**BIOL 633 PLANT MORPHOGENESIS (6)** Morphological growth and development of plants in response to natural and artificial stimuli at the cellular, tissue, and organ level. Prerequisite: 10 semester hours in botany.

**BIOL 635 PHYSIOLOGICAL PLANT ECOLOGY (4)** Physiological inter-actions between plants and environments at the organism level. Physical and biological factors affecting the physiology and distribution of plants. Prerequisites: BIOL 402, BIOL 435, BIOL 436 recommended, or consent of instructor.

**BIOL 641 PRINCIPLES OF PHYSICAL BIOCHEMISTRY (3)** Chemical thermodynamics to bioenergetics; the application of chemical kinetics to enzyme kinetics and other time-dependent biochemical phenomena; transport phenomena with emphasis upon

membrane transport, centrifugation, and an introduction to X-ray crystallography. Prerequisites: CHEM 350 or CHEM 353 and MATH 273 or equivalent; MATH 274 recommended.

**BIOL 651 OSMOREGULATION (3)** Mechanisms of salt and water regulations in animals. Emphasis on structural and functional modifications in representative species which permit survival in osmotically stressful environments. Prerequisites: BIOL 311 or equivalent and CHEM 105 or equivalent.

**BIOL 653 BIOLOGY OF FRESHWATER INVERTEBRATES (4)** Invertebrates including classification, adaptive strategies and various ecological parameters influencing distribution of local fauna in freshwaters. Parasitic forms are excluded. Prerequisite: BIOL 207, BIOL 353, BIOL 461 recommended.

**BIOL 661 INSECT ECOLOGY (4)** Insect communities and populations. Conditions of the environment that favor abundance of insects in various habitats. Local field work required. Prerequisite: BIOL 461; BIOL 353.

**BIOL 681 RECENT ADVANCES IN BIOLOGY (4)** Factual and technological advances in the five following areas: botany, zoology, ecology, genetics and evolution, cellular and molecular biology. Prerequisite: 9 graduate credits in biology.

**BIOL 701 NON-THESIS LABORATORY RESEARCH (3)** Research project. Credit granted after paper defended.

**BIOL 703 NON-THESIS LIBRARY RESEARCH (3)** Paper based upon an extensive literature survey. Credit granted after paper defended.

**BIOL 797 GRADUATE SEMINAR (1)** Student reports and discussion dealing with biological research. An outline of the seminar and a bibliography are required. A maximum of one credit is allowable for the MS degree in biology.

**BIOL 898 THESIS (3 to 6)** An original investigation to be pursued under the direction of one or more faculty members. Credit granted after thesis acceptance.

**BIOL 899 THESIS CONTINUUM (1)**

## CHEMISTRY

Chairperson: Nordulf Debye

### CHEMISTRY COURSES (CHEM)

**CHEM 500 SEMINAR IN CHEMISTRY (1)** An introduction to chemical literature. The attendance at all seminars and presentation of seminars to the Chemistry Department on topics selected by the Chemistry faculty or selected by the student and approved by the faculty. One and one-half hour seminar period. Prerequisites: CHEM 211, CHEM 332; Co-requisite: CHEM 341 or CHEM 342. Offered each semester.

**CHEM 501-504 SPECIAL PROBLEMS IN CHEMISTRY (1-3)** A laboratory or library problem in any particular area of chemistry to be selected by the student in consultation with the instructor. Students are required to submit a written report. May be repeated for credit as CHEM 392, CHEM 393, etc. Prerequisite: Written consent of instructor. Offered each semester.

**CHEM 505-508 INTRODUCTION TO RESEARCH IN CHEMISTRY (1-3)** An individual laboratory and/or library investigation in research interest of an instructor. May be repeated for credit as CHEM 492, CHEM 493, CHEM 494, etc. At the completion of a project the student must write a formal research paper on the work done and the principles involved. The student's performance will be evaluated by the research director and selected members of the faculty. Prerequisite: Consent of instructor. Offered each semester.

**CHEM 518 ADVANCED ANALYTICAL CHEMISTRY (3)** A special topics course dealing with the theory and application of more recent and specialized techniques of chemical separation and analysis. Three lecture hours. Prerequisites: CHEM 415 or CHEM 411. Not open to students with credit for CHEM 412.

**CHEM 534 ADVANCED ORGANIC CHEMISTRY LABORATORY (3)** The design of organic synthesis, advanced laboratory techniques, and determination of structure by chemical and spectroscopic means will be taught by laboratory problems and discussion. One lecture hour and six laboratory hours. Prerequisite: CHEM 332 and consent of instructor.

**CHEM 535 ADVANCED ORGANIC CHEMISTRY (3)** Advanced topics will include several of: molecular orbital theory, pericyclic reactions, photochemistry, and determination of reaction mechanisms by: kinetics, linear free energy relationships, acid-base properties, acid-base catalysis, detection of intermediates, stereochemistry, etc. Three lecture hours. Prerequisites: CHEM 332 and CHEM 342; CHEM 341 is recommended.

**CHEM 542 PHYSICAL CHEMISTRY—THERMODYNAMICS (3)** Thermodynamics, phase relations, solution properties, chemical equilibrium and electrochemistry. Three lecture hours. Prerequisites: CHEM 102, MATH 274, and PHYS 222 or PHYS 212. Offered each fall.

**CHEM 543 PHYSICAL CHEMISTRY—STRUCTURE AND KINETICS (3)** Introduction to quantum chemistry; atomic and molecular structure, atomic and molecular spectroscopy, introduction to statistical thermodynamics, kinetic theory, and chemical kinetics. Three lecture hours. Prerequisites: CHEM 102, MATH 274, and PHYS 222 or PHYS 212. Offered each spring.

**CHEM 544 PHYSICAL CHEMISTRY LABORATORY I (2)** Five laboratory projects in physical chemistry and discussion of experimental techniques. One lecture hour and one three-hour laboratory period. Prerequisites: CHEM 210 and CHEM 340 or CHEM 341 or CHEM 342. Offered each spring.

**CHEM 545 PHYSICAL CHEMISTRY LABORATORY II (2)** Five laboratory projects in physical chemistry and discussion of advanced experimental techniques. One lecture hour and one three-hour laboratory period. Prerequisites: CHEM 211 and CHEM 341 or CHEM 342. Offered each fall.

**CHEM 546 ADVANCED PHYSICAL CHEMISTRY (3)** Two topics in the area of Physical Chemistry to be covered in depth. Topics will be selected by the instructor after consultation with the students. Examples of possible topics are: formal wave mechanics, bonding, solid state, liquid state, surface chemistry, colloids, high polymers, rheology, ionic conductivity, electrochemical cells, scattering phenomena, statistical thermodynamics. Three lecture hours. Prerequisites: CHEM 341 and CHEM 342.

**CHEM 551 PRINCIPLES OF BIOCHEMISTRY (5)** Introduction to Biochemistry. Discussion of protein structure, enzyme kinetics and enzyme catalysis. Survey of intermediary metabolism of carbohydrates. Discussion of lipid structure, lipid metabolism and membranes. The laboratory will introduce modern methods of Biochemistry: electrophoresis, enzyme kinetics and enzyme isolation and purification. Three lecture hours and one four-hour laboratory period. Not recommended for Chemistry majors. Prerequisite: CHEM 330 or CHEM 332. Offered each fall.

**CHEM 554 ADVANCED BIOCHEMISTRY (3)** The use of physical methods in the study of biochemical systems, biochemical thermodynamics; the structure of proteins including X-ray crystallography, macromolecular solution thermodynamics, enzyme kinetics, and spectroscopic probing of macromolecular structure will be discussed. Three lecture hours. Prerequisites: CHEM 353 or CHEM 355.

**CHEM 555 ADVANCED BIOCHEMISTRY LABORATORY (2)** Basic laboratory techniques involving the synthesis, isolation,

purification, identification, and further reactions of substances in biochemical systems. Two three-hour laboratory periods. Prerequisites: CHEM 353 or CHEM 356.

**CHEM 562 CHEMICAL AND BACTERIOLOGICAL STUDIES ON WATER POLLUTION (3)** Deals mainly with water pollution: causes, effects, and cures. Considers details of water and waste treatment. Emphasizes technical details of analysis of water. Concerns standards of water purity and variables involved. Demonstration of analytical methods to be given. Case studies and applications are viable approaches to this topic. Three lecture hours. Prerequisites: BIOL 102 and CHEM 110. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 564 CHEMISTRY OF DANGEROUS DRUGS (3)** A study of the chemistry, methods of detection and analysis of narcotics, depressants, stimulants and hallucinogens. Also, the influence of physiochemical properties upon the pharmacological effects of drug-receptor interactions. Historical, forensic, and socio-economic implications associated with drug abuse will also be reviewed. Three lecture hours. Prerequisites: CHEM 330 and CHEM 350 or CHEM 331-332. Also CHEM 210 or CHEM 211 recommended. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 566 POLYMER CHEMISTRY (3)** Course will cover the following aspects of polymers: structure, physical properties, methods of preparation, rheology, mechanical properties, degradation and stabilization, application and fabrication, and related contemporary topics. Carbon chain and heterochain polymers will be discussed, and spectroscopic methods of analysis (IR, UV and NMR) will be presented. Three lecture hours. Prerequisites: CHEM 101, CHEM 102, CHEM 331 and CHEM 332. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 568 FORENSIC CHEMISTRY (3)** An introduction to chemical and physical analyses used by a modern crime laboratory in the evaluation of physical evidence encountered in criminal acts. Areas of concentration will include drug analysis, toxicology, forensic serology, explosives analysis, arson examination, firearms and tool marks and trace evidence. Emphasis will be placed on the value of such examinations as presented by the expert witness in a criminal trial. Three lecture hours. Prerequisites: CHEM 101, CHEM 102, CHEM 210 or CHEM 211, CHEM 330 or CHEM 332. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 570 ORGANOMETALLIC CHEMISTRY (3)** A survey of the chemistry of compounds containing carbon-metal bonds. Synthesis, reactions and structures of compounds such as metal alkyls, carbonyls, pi-complexes, and the uses of these compounds in synthesis will be considered. Three lecture hours. Prerequisites: CHEM 331, CHEM 332; CHEM 423 recommended. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 572 SPECTROMETRIC METHODS IN CHEMISTRY (4)** This course deals with the theory and application of three of the major instruments used in chemistry today: nuclear magnetic resonance spectroscopy, infrared spectroscopy, and mass spectrometry. Emphasis will be on the practical use of the instruments in pure and applied chemical investigations involving students in the actual operation of the instruments. Two lecture hours and four laboratory hours. Prerequisites: CHEM 332 and consent of instructor. Offered through Division of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 584 MODERN CHEMISTRY: PRINCIPLES AND APPLICATIONS I (3)** A survey of principles and modern applications of chemistry for secondary school teachers. Lecture: bonding, acids and bases, equilibria, energy, and redox chemistry. Laboratory: the design of experiments suitable for the secondary school curriculum. Two lecture hours and two hours of laboratory-discussion. Prerequisite: Completion of approximately 20 credits in chemistry and consent

of instructor. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 585 MODERN CHEMISTRY: PRINCIPLES AND APPLICATIONS II (3)** A survey of principles and applications of chemistry for secondary school teachers. Lecture: organic, biochemistry, agricultural chemicals, special topics. Laboratory: the design of experiments for the secondary school curriculum. Two lecture hours and two hours of laboratory-discussion. Prerequisite: Completion of approximately 20 credits in chemistry and consent of instructor. Offered through College of Continuing Studies (evening and summer) if sufficient demand.

**CHEM 641 PHYSICAL CHEMISTRY: PRINCIPLES AND APPLICATIONS FOR TEACHERS (4)** Chemical theory, experimental methods, and solutions and phases, reaction kinetics, applications of quantum mechanics, and instrumental techniques. Prerequisites: CHEM 102, MATH 115 or MATH 119, and PHYS 203 or PHYS 211 or PHYS 221; or consent of Secondary school teaching experience. MATH 273 is strongly recommended.

## COMMUNICATION SCIENCES AND DISORDERS

Chairperson: Bill Wallace

Graduate Department Coordinator: Speech-Language Pathology and Audiology Program: Joyce Schwartz Reitzel

### SPEECH LANGUAGE PATHOLOGY AND AUDIOLOGY COURSES (SPPA)

**SPPA 570-579 SPECIAL TOPICS SEMINAR IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (3)** Investigation of particular topics in the fields of speech and language pathology and audiology. The topic will vary each semester the course is offered. Prerequisite: Varies with topic.

**SPPA 601 SEMINAR IN LANGUAGE DISORDERS OF CHILDREN (3)** Various syndromes and their associated language disorders. Prerequisites: SPPA 302 and consent of instructor.

**SPPA 605 NEUROPATHOLOGIES OF SPEECH (3)** Neuroanatomy and neurophysiology relevant to communication impairment resulting from brain injury. Symptomatology, evaluation procedures and therapeutic techniques relevant to the management of aphasia, apraxia, and dysarthria. Prerequisites: SPPA 306 and SPPA 487 and consent of instructor.

**SPPA 607 DIAGNOSTIC METHODS IN SPEECH/LANGUAGE PATHOLOGY (3)** Standardized and non-standardized techniques for testing the speech, language and cognitive functioning of children and adults. Prerequisites: SPPA 487, SPPA 605 and consent of instructor.

**SPPA 609 NONVOCAL COMMUNICATION FOR THE DISABLED (3)** Development of prelinguistic communication. Role of nonverbal communication behaviors in the acquisition and development of speech and language. The compensatory or augmentative use of various non-speech communication modes with persons whose handicap (disability) prevents effective verbal communication. Prerequisites: SPPA 105, professional experience with disabled population and/or consent of instructor.

**SPPA 611 SEMINAR IN APPLICATION OF LINGUISTICS TO SPEECH PATHOLOGY (3)** Psycholinguistics and generative grammar and its application to diagnosis and management of those with language disorders. Prerequisites: SPPA 105 and consent of instructor.

**SPPA 612 AURAL HABILITATION/REHABILITATION (3)** Theories, objectives and techniques for the teaching of speech reading, speech conversation and auditory training. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 613 RESEARCH DESIGN SEMINAR IN SPEECH/ LANGUAGE PATHOLOGY AND AUDIOLOGY (1)** Research methods, techniques and needs in speech, language pathology and audiology. Prerequisites: SPPA 487 and consent of instructor.

**SPPA 615 VOICE DISORDERS: ETIOLOGY, DIAGNOSIS, TREATMENT AND RESEARCH (3)** Etiology, diagnosis and treatment of organic and functional disorders of voice in children and adults. Prerequisites: SPPA 306 and consent of instructor.

**SPPA 617 PHONOLOGICAL DISORDERS: DIAGNOSIS AND TREATMENT (3)** Diagnostic procedures and treatment programs for articulation disorders in children and adults. Prerequisites: SPPA 306 and consent of instructor.

**SPPA 618 EXPERIMENTAL PHONETICS (3)** Physiological, acoustic and perceptual aspects of production and perception of speech. Prerequisites: SPPA 210 and consent of instructor.

**SPPA 619 CURRENT ISSUES IN STUTTERING SEMINAR (3)** Management procedures for children and adults with disorders of fluency. Prerequisites: SPPA 305 and consent of instructor.

**SPPA 621 SEMINAR IN DIAGNOSIS OF DISORDERS OF THE AUDITORY SYSTEM (3)** History, rationale and procedures of audiological diagnosis. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 631 SEMINAR IN PSYCHOACOUSTIC, INSTRUMENTATION AND CALIBRATION (3)** Psychoacoustic principles and procedures. Laboratory experience with electroacoustic instrumentation and calibrating of such instrumentation. Prerequisite: Consent of instructor.

**SPPA 643 SEMINAR IN NEUROBIOLOGIC ASPECTS AND ASSESSMENT OF THE AUDITORY SYSTEM (3)** Examination of the bioacoustic and neurophysiologic properties of the peripheral and central auditory systems. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 644 AUDIOLogy SEMINAR—CURRENT TOPICS IN AUDITION (3)** Topics to be determined. Prerequisite: Consent of instructor.

**SPPA 651 INDUSTRIAL AND ENVIRONMENTAL AUDIOLogy (3)** Industrial, community, and environmental aspects of noise and its effects upon hearing. Development of hearing conservation programs. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 653 PEDIATRIC AUDIOLogy (3)** Principles and techniques for identifying and evaluating hearing impaired children. Consideration of multiple handicaps. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 655 HEARING AID SELECTION PROCEDURES (3)** Electroacoustic characteristics of amplifying systems utilized with the hearing impaired. Principles and methods of hearing aid selection and management with infant through geriatric population. Prerequisites: SPPA 321 and consent of instructor.

**SPPA 661 DIALECTS OF ETHNIC GROUPS IN AMERICAN SOCIETY (3)** Cultural variance, socio-linguistic theory, and descriptive linguistic analysis techniques. Investigation of speech patterns of English-dialect speakers in "minority" ethnic groups of U.S. Prerequisites: SPPA 210.

**SPPA 670-679 SPECIAL TOPIC SEMINAR IN SPEECH- LANGUAGE PATHOLOGY AND AUDIOLOGY (3)** A concentrated investigation of particular topics in the field of communication sciences and disorders. The topics will vary each semester the course is offered. Prerequisites: Graduate standing; basic course or equivalent in topic area, or consent of department.

**SPPA 690 CLINICAL PRACTICUM (1)** Supervised clinical experience with communicatively impaired children and adults in the university clinical facility. Prerequisites: SPPA 497 and consent of department.

**SPPA 701 SEMINAR IN LANGUAGE AND COGNITION (3)** Strategies and processes by which children learn language. The theory of cognitive development as it relates to language acquisition. Prerequisites: SPPA 105 and consent of the instructor.

**SPPA 702 COMMUNICATION DISORDERS IN MENTAL RETARDATION SEMINAR (3)** Nature, etiology, development, evaluation and habilitation of individuals diagnosed as mentally retarded with emphasis in the associated speech-language and hearing disorders. Prerequisite: Consent of instructor.

**SPPA 745 ADVANCED CLINICAL PRACTICUM (1)** Supervised clinical experience with communicatively impaired children and adults in on campus or off campus placements. Prerequisites: SPPA 487 and consent of department.

**SPPA 795 GRADUATE RESEARCH PAPER IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (3)** Paper reporting results of original experimental or clinical research related to the field. Prerequisites: Graduate student standing and consent of department.

**SPPA 796 INDEPENDENT STUDY IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (3)** Investigation in selected area of Speech-Language Pathology and Audiology. Prerequisites: Graduate student standing and consent of department.

**SPPA 797 DIRECTED READINGS IN SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (3)** Readings in particular topic in Speech-Language Pathology or Audiology. Prerequisites: Graduate student standing and consent of department.

**SPPA 898 THESIS (3)** Original investigation using an acceptable research method and design conducted under the direction of a faculty committee. Prerequisite: SPPA 613.

**SPPA 899 THESIS CONTINUUM (1)**

## COMPUTER AND INFORMATION SCIENCES

Chairperson: Joyce Little

**COSC 515 ADVANCED BUSINESS PROGRAMMING (3)** A course in advanced programming concepts for business applications. Topics to be covered include the report writer feature, table handling, sorting, direct access files, program segmentation, and job control language. Students will work on several case studies and programming projects. Prerequisite: COSC 212.

**COSC 516 DATA STRUCTURES AND SORTING TECHNIQUES (3)** An introduction to data structures such as lists, trees and graphs and their implementation. Algorithms for efficient searching, sorting, insertion, and deletion will be investigated. The implications of storage media characteristics and file organization and manipulation will be studied. Not open to those who completed COSC 237. Prerequisites: COSC 236 or COSC 225.

**COSC 518 COMPUTER ORGANIZATION (3)** A study of computer architecture, arithmetic and basic logic design will provide an understanding of the mechanics of information transfer and control within the computer system. Prerequisite: COSC 280 and MATH 263.

**COSC 519 OPERATING SYSTEMS PRINCIPLES (3)** An overview of the principles of operating systems. Topics include multiple processes, process synchronization and intercommunication, resource allocation, memory management, processor scheduling, and I/O device management. Not open to those who completed Programming Systems. Prerequisite: COSC 336 and COSC 338.

**COSC 527 SURVEY OF PROGRAMMING LANGUAGES (3)** Survey of the significant features of existing programming languages with emphasis on understanding the concepts abstracted from those languages. The course covers: algorithmic languages such as

ALGOL, problem oriented languages such as SNOBOL, theoretically interesting languages such as LISP, and general purpose languages such as FORTRAN and PL/I. Prerequisite: COSC 336.

**COSC 534 DISCRETE STRUCTURES (3)** This course deals with the basic mathematical structures used in computer science. It covers boolean algebra, graph theory, semigroups, grammar and automata, showing how these structures apply to heuristic programming, networks and computer construction. Prerequisites: MATH 261 and COSC 336.

**COSC 543 DESIGN AND ANALYSIS OF ALGORITHMS (3)** Algorithm design methods such as heuristics, backtrack programming, branch and bound, recursion, simulation, divide-and-conquer, balancing and dynamic programming. Efficiency of algorithms—NP-complete problems. Prerequisite: COSC 336 and MATH 263.

**COSC 551 SYSTEMS AND DESIGN (3)** A course designed to guide the student through the stages of the evolution of data processing systems, including analyses of present information flow, system specifications, equipment selection, and implementation of the system to provide an understanding of the skill and knowledge needed for the effective use of data processing equipment in meeting information needs. Prerequisites: COSC 336 and an additional upper division Computer Science course.

**COSC 553 IMPLEMENTATION OF PROGRAMMING LANGUAGES (3)** A study of internal organization and data structures used by compilers in lexical analysis, parsing, and code generation; run-time data structures; global properties of programming languages including scope of declarations, groupings of statements, binding times, control structures, and memory management; definitions of programming languages including the specifications of syntax and semantics, and case studies in several systems including both compiled and interpreted languages. Prerequisites: COSC 280 and COSC 355 and MATH 263.

**COSC 554 INTRODUCTION TO THE THEORY OF COMPUTING (3)** A general introduction to the theory of computation, including finite automata, compatibility, formal languages and their relation to automata, algorithms, and algorithmic complexity. The major emphasis will be on developing formal descriptions of computers and computational processes, and practical implications of theoretical results. Prerequisites: COSC 367; or MATH 361 and COSC 235 or equivalent.

**COSC 561 SELECTED TOPICS IN COMPUTER SCIENCE (1-3)** Independent studies in selected areas of computer science. May be repeated for a maximum of 4 credits. Prerequisite: Consent of instructor and nine hours of computer science.

**COSC 563 FILE AND DATA STRUCTURES (3)** A study of the relations among elements of data involved in problems, the structure of storage media and machines, and the methods used in representing structural data. Storage systems and structures, symbol tables, searching and sorting techniques are discussed. Formal specification of data structures and generalized data management systems are investigated. Prerequisites: COSC 336 and COSC 338.

**COSC 571 COMPUTER PERFORMANCE EVALUATION (3)** Computer system performance evaluation methodologies, techniques and tools including different types of monitors as a measurement tool, work-load characterization, important performance indices, analytic modeling with particular emphasis on the application of the operational queuing network modeling techniques to performance analysis, and technical aspects of computer selection. Prerequisites: MATH 274 and COSC 379; 339. (May be taken concurrently).

**COSC 578 DATABASE MANAGEMENT SYSTEMS (3)** Data models and sublanguages. Security and integrity problems. The functions of the database administrator. The implementation and use of a database management system. A comparison of widely used DBMS packages. Prerequisite: COSC 336.

**COSC 581 ARTIFICIAL INTELLIGENCE (3)** A survey of the problems and techniques involved in producing or modelling intelligence in computers. Particular emphasis will be placed on representation of knowledge and basic paradigms of problem solving. Topics include game playing, theorem proving, natural language and learning systems. Prerequisites: COSC 355 and MATH 263.

**COSC 586 COMPUTER GRAPHICS (3)** An introduction to the field of computer generated and/or displayed graphics data. Covers the topics of representation, transformations, curve and 3-D problems, graphics hardware, and programming considerations. Prerequisites: MATH 263 or MATH 365 and COSC 336.

**COSC 607 COMPUTERS IN SECONDARY EDUCATION (3)** This course is designed for teachers in secondary schools to acquaint them with the uses of computers at the secondary level and to present methods and materials for use of the computer in the classroom. Prerequisites: Knowledge of at least one high level programming language and teaching experience or completion of student teaching or consent of instructor.

**COSC 611 COMPUTER SIMULATION (3)** Process of modeling and simulation. Situations examined for which modeling and simulation techniques are appropriate. Prerequisites: MATH 530 and COSC 336.

**COSC 613 HARDWARE AND SOFTWARE IN MICROCOMPUTERS (3)** Microcomputers including basic hardware and enhancement, software availability management. Prerequisite: COSC 336.

**COSC 670-679 SPECIAL TOPICS IN COMPUTER SCIENCE (3)** Reading and study in selected topics in the field of computer science. Emphasis is on an increased knowledge of computer science. A project or paper is required. Prerequisites: COSC 336, 607, and graduate standing.

**COSC 681 SEMINAR IN COMPUTER SCIENCE EDUCATION (3)** Analysis of research trends and critical issues in computer science education. Prerequisites: COSC 607.

**COSC 695 INDEPENDENT STUDY IN COMPUTER SCIENCE (3)** Independent study in selected areas of Computer Science. Prerequisites: Nine hours at the graduate or upper division level.

## EARLY CHILDHOOD EDUCATION

Chairperson: Patricia Waters  
Graduate Departmental Coordinator: Early Childhood Education Program: Theodora Kimsey

### EARLY CHILDHOOD EDUCATION COURSES (ECED)

**ECED 503 THE CURRICULUM IN PRIMARY EDUCATION (3)** The child, curriculum, content, methods and materials of teaching, and program organization in the primary school years. Evenings and summers only. Prerequisite: For uncertified teachers only. 6 hours of ECED. Not open to graduates of ECE programs.

**ECED 511 PARENTS AND TEACHERS: PARTNERS IN EARLY CHILDHOOD EDUCATION (3)** The development of a rationale for improved parent-teacher relationships in ECED programs. The role of para-professionals, specialists, and volunteers. Observation, participation, home and school visits by teachers and parents functioning as a team. Prerequisite: Six hours of Early Childhood Education or approval of Early Childhood Education Department.

**ECED 515 THE DAY CARE CENTER (3)** An interdisciplinary course designed to prepare day care personnel. Resource persons from related agencies will participate. Topics include purposes of day care, problems of organization, administration and supervision, records, programs, community interaction, and parent relations. Field trips and observation of day care centers. Prerequisite: Six hours of ECED or approval of Early Childhood Education Department.

**ECED 517 EARLY IDENTIFICATION OF LEARNING DISABILITIES (3)** Survey of the nature of learning disabilities in the young child; emphasis on early identification, theoretical approaches, major disability categories; survey of remedial principles. Prerequisites: 6 hours of PSYC and 6 hours of ECED or approval of Early Childhood Education Department.

**ECED 521 PROBLEMS IN EARLY CHILDHOOD EDUCATION (3)** Research findings used as a basis for program planning in nursery school, kindergarten and primary grades; current trends and issues are considered. Prerequisite: student teaching and/or teaching experience in preschool or primary grades; junior standing; or approval of Early Childhood Education Department.

**ECED 523 LABORATORY EXPERIENCES IN EARLY CHILDHOOD EDUCATION (3)** Classroom experiences with children in preschool and primary grades in a variety of teaching-learning situations. Analysis of observations in light of current research. Concurrent with ECED 421. Summers only. Prerequisite: junior standing and approval of Early Childhood Education Department.

**ECED 570-589 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION: (Topic to be named) (1-3)** In-depth study of a selected topic in Early Childhood Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Graduate credit only with approval of the graduate program coordinator. Each topic may be taken as a separate course; repeatable for different topics.

**ECED 594 TRAVEL AND STUDY: EARLY CHILDHOOD EDUCATION (1-6)** A field study, including cultural tours in selected foreign countries, of current Early Childhood Education programs, facilities, and trends. Lectures, observations, and personal interactions. Required participation in planned educational activities and a follow-up paper. Prerequisites: junior, senior, graduate standing, or consent of the department chair. Consent of graduate program coordinator required for graduate degree credit. Minimester only. May be repeated for a maximum of 6 credits.

**ECED 609 GROWTH AND DEVELOPMENT OF YOUNG CHILDREN (3)** Methods of studying behavior; implications for programs and curriculum development.

**ECED 613 PROGRAMS FOR INFANTS AND CHILDREN (3)** Review, research and evaluation of programs for young children. Prerequisite: ECED 609.

**ECED 615 ADMINISTRATION AND SUPERVISION OF PROGRAMS FOR YOUNG CHILDREN (3)** Theory and practice of operating programs for young children; staff selection; evaluation; training; curriculum development; financing; and budgeting. Prerequisites: 6 credits ECED.

**ECED 617 ADVANCED LEARNING DISABILITIES (3)** Research; theories; etiology; identification and remediation; emphasis on neuropsychology of learning. Prerequisites: 6 credits in psychology and 6 credits graduate level ECED.

**ECED 619 MEASUREMENT AND EVALUATION IN EARLY CHILDHOOD EDUCATION (3)** Assessment instruments; research; basic statistical concepts; diagnostic and prescriptive testing. Prerequisites: 6 credits ECED; 6 credits PSYC.

**ECED 621 PREVENTION OF READING FAILURE IN EARLY CHILDHOOD (3)** Prereading and beginning reading skills in relation to stages of cognitive development and individual differences of children with emphasis on implications for teaching. Prerequisite: ECED 609.

**ECED 631 THE GIFTED AND TALENTED YOUNG CHILD (3)** Theory and research on characteristics, identification programming and curriculum adaptations for young gifted children. Prerequisite: ECED 609.

**ECED 637 MAINSTREAMING FOR THE CLASSROOM TEACHER (3)** Legal bases, programs, methods and materials for children with

special needs; emphasis on the regular classroom situation. Prerequisites: student teaching or teaching experience and/or consent of instructor.

**ECED 647 THE TEACHING PROCESS: EARLY CHILDHOOD EDUCATION (3)** Systems for analyzing teaching behavior; models of teaching for achieving cognitive, social, and personal learning objectives; and analysis of classroom application of teaching models. Prerequisite: teaching experience (students enrolling for this class should be teaching).

**ECED 653 PERCEPTUAL AND COGNITIVE DEVELOPMENT OF YOUNG CHILDREN (3)** Piaget's theory and related research on stages of intellectual development with emphasis on implications for selecting materials, activities, and teaching strategies in preschool and primary grades. Prerequisite: PSYC 611 or ECED 609.

**823.670-672 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION (1-3)** Studies in selected content areas. Prerequisites vary according to topic area. Prerequisite: Consent of graduate coordinator.

**ECED 695 INDEPENDENT STUDY IN EDUCATION: EARLY CHILDHOOD (3)** Independent study in selected areas of Early Childhood Education. Prerequisites: Early Childhood Education graduate standing and consent of Early Childhood Education graduate coordinator.

**ECED 696 DIRECTED READINGS IN EARLY CHILDHOOD EDUCATION (3)** Independent readings in selected areas of Early Childhood Education. Prerequisites: graduate standing and consent of Early Childhood Education graduate coordinator.

**ECED 773 SEMINAR IN EARLY CHILDHOOD EDUCATION (3)** Investigation of topics related to working with young children and parents. Prerequisites: EDUC 761 and 15 credits in graduate level ECE.

**ECED 898 MASTER'S THESIS IN EARLY CHILDHOOD EDUCATION (3)**

**ECED 899 THESIS CONTINUUM (1)**

## ECONOMICS

Chairperson: Henry Sanborn

### ECONOMICS COURSES (ECON)

**ECON 585 SEMINAR ON ECONOMIC ISSUES (3)** Research and writing of papers on an economic issue selected by the instructor. Prerequisites: ECON 309, ECON 313, and ECON 310.

**ECON 593 WORKSHOP ON ECONOMIC EDUCATION (3)** Designed to help teachers and school administrators gain a better understanding of the economic working of the society in which we live. Prerequisite: Consent of the instructor.

**ECON 690 INDEPENDENT STUDY (1-3)** Individual and supervised study in selected areas of economics. Prerequisite: Permission of instructor.

**ECON 693 ECONOMIC EDUCATION RESEARCH AND METHODS (3)** Methodology and research in contemporary economic education in the elementary and secondary schools. A contemporary issues approach to economic instruction is employed. Prerequisites: ECON 301, ECON 309, ECON 323, and ECON 335.

**ECON 695 SEMINAR IN ECONOMICS (3)** Research and writing of papers on an economics issue selected by the instructor. Prerequisites: ECON 309, ECON 323 and ECON 335.

**ECON 697 INTERNSHIP IN ECONOMICS (3)** Supervised work experience designed to provide an understanding of the economic system and the practical application of economic principles. Prerequisites: Graduate student in Economics or Economic Education, 12 credits completed, and consent of Practicum Coordinator.

## ELEMENTARY EDUCATION

Chairperson: Chandler Barbour

Graduate Departmental Coordinator: Elementary

Education Program: Joseph Suhorsky

### ELEMENTARY EDUCATION COURSES (ELEM)

**ELEM 511 STAFF DEVELOPMENT AND LEADERSHIP IN THE ELEMENTARY SCHOOL (3)** An introductory course in elementary school staff development and administration with emphasis upon interpersonal and staff relationships, learning strategies and settings, curriculum developments and school-community concerns. A course designed for classroom teachers; curriculum writers; and specialists; senior, helping or resource teachers; teacher advisors; team leaders; grade or department chairpersons; and others in leadership roles. Prerequisites: A teaching certificate and/or teaching experience.

**ELEM 529 METHODS AND PRINCIPLES OF READING INSTRUCTION—ADVANCED (3)** Principles involved in building a developmental reading program; prevention of reading difficulties; methods of remedial reading. Prerequisite: ELEM 323 or ELEM 462.

**ELEM 541 CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (3)** The child and his curriculum. The teacher's role in curriculum as a process. Principles and philosophies of curriculum development. Objectives, practices, materials, and evaluation trends. Prerequisite: ELEM 379.

**ELEM 557 ENGLISH FOR THE NON-ENGLISH SPEAKING CHILD (3)** Methods of teaching English to elementary school children whose native tongue is another language. Prerequisites: Elementary language arts methods course or elementary teaching experiences or consent of instructor.

**ELEM 558 PRACTICUM: ENGLISH FOR THE NON-ENGLISH SPEAKING CHILD (1-4)** Supervised practical experience in teaching English to elementary school children whose native tongue is another language. Prerequisite: ELEM 457 and student teaching or teaching experience. May be repeated for a maximum of 4 credits.

**ELEM 570-589 SPECIAL TOPICS IN ELEMENTARY EDUCATION: (Topic to be named) (1-3)** In-depth study of a selected topic in Elementary Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Graduate credit only with approval of the graduate coordinator. Each topic may be taken as a separate course. May be repeated under separate topics.

**ELEM 594 TRAVEL AND STUDY: ELEMENTARY EDUCATION (1-6)** Study abroad of educational facilities, programs, or practices, or selected projects in Elementary Education topics. By special arrangement with program chairperson and sponsoring instructors. Consent of graduate program coordinator required for graduate degree credit. May be repeated for a maximum of 6 credits.

**ELEM 595 INDEPENDENT STUDY IN EDUCATION: ELEMENTARY (1-4)** An opportunity for especially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Approval of appropriate program chair. May be repeated for a maximum of 4 credits.

**ELEM 596 DIRECTED READING: ELEMENTARY EDUCATION (1-4)** Independent reading in selected areas of Elementary Education in order to provide for the individual a comprehensive coverage or to meet special needs. By invitation of the Department to major students. Prerequisite: Approval of appropriate program chair. May be repeated for a maximum of 4 credits.

**ELEM 611 READING AND OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL—ADVANCED (3)** Application of theory and research to the teaching of reading and the other language arts. Prerequisites: ELEM 321, ELEM 323 or ELEM 462.

**ELEM 613 PSYCHOLINGUISTICS AND READING COMPREHENSION (3)** Investigation of psycholinguistic research. Implementing research findings in the classroom to develop reading comprehension and thinking strategies. Prerequisite: One course in reading instruction.

**ELEM 621 DIAGNOSIS AND PRESCRIPTION FOR LEARNING DIFFICULTIES (3)** Learning difficulties in the elementary and middle school; diagnosing and remediating learning difficulties. Prerequisites: Student teaching and/or classroom teaching experience and 6 credits in psychology.

**ELEM 623 DIAGNOSIS AND PRESCRIPTION FOR LEARNING DIFFICULTIES—ADVANCED (3)** Diagnostic teaching, team conferencing, identification of learning problems and learning styles, and effects of mainstreaming. Teaching strategies to improve auditory, visual, and verbal skills, cognitive skills related to arithmetic and reading comprehension, and classroom behavior. Prerequisite: EDUC 629 or EDUC 621 or permission of the instructor.

**ELEM 631 EDUCATING THE GIFTED (3)** Identification of gifted student in elementary and middle schools; curricular adaptations and school programs; stimulating creativity and problem solving strategies. Prerequisite: Student teaching or teaching experience or consent of instructor.

**ELEM 633 READING AND LANGUAGE ARTS FOR GIFTED STUDENTS (3)** Teaching reading and language arts to gifted students, diagnosing levels and needs, evaluating programs, preparing an integrative unit, assessing techniques for teaching high-level comprehension and study skills, and locating resources. Prerequisite: one course in Children's Literature or Young Adult Literature or Reading and Language Arts, Advanced or Educating the Gifted or permission of instructor.

**ELEM 637 MAINSTREAMING FOR THE CLASSROOM TEACHER (3)** Legal bases; programs; methods and material for children with special needs; emphasis on the regular classroom situation. Prerequisites: Student teaching or teaching experience and/or consent of instructor.

**ELEM 640 DISCIPLINE AND MANAGEMENT IN THE ELEMENTARY SCHOOL (3)** Classroom discipline in the elementary school and development of ways and means of implementing appropriate classroom management techniques. Prerequisite: Student teaching, teaching experience, or consent of instructor.

**ELEM 643 VALUES REALIZATION: STRATEGIES FOR TEACHERS, PARENTS AND COUNSELORS (3)** Students acquire skills through self-analysis, examination of life styles and values systems and develop an understanding and acceptance of cultures that are different from their own.

**ELEM 647 THE TEACHING PROCESS: ELEMENTARY EDUCATION (3)** Systems for analyzing teaching behavior, models of teaching for achieving cognitive, social, and personal learning objectives; and analysis of classroom application of teaching models. Prerequisite: Teaching experience. (students enrolling for this class should be teaching).

**ELEM 648 INDIVIDUALIZING LEARNING IN THE ELEMENTARY SCHOOL (3)** Individualizing learning and restructuring of organizational patterns, with emphasis on learning centers, listening stations, task folders, and media centers, and computer applications. Prerequisites: certification and teaching experience, or consent of instructor.

**ELEM 661 HUMANIZING THE CURRICULUM (3)** The philosophy, theories, and techniques in humanistic education; development and use of methods, materials and curricula for humanistic teaching. Prerequisite: student teaching, teaching experience or consent of the instructor.

**ELEM 665 THEORY AND PRACTICE OF CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (3)** History of curricu-

lum development in the elementary school; basic considerations affecting curriculum development; patterns of organization; objectives; practices and evaluation; problems in curriculum development. Prerequisites: Certification and teaching experience or consent of instructor.

**ELEM 670-674 SPECIAL TOPICS IN ELEMENTARY EDUCATION (1-3)** Study of a topic in elementary education. Requirements and prerequisites vary with each topic.

**ELEM 685 SEMINAR IN ELEMENTARY SCHOOL SOCIAL STUDIES (3)** Trends, content, issues, and materials involved in the teaching of social studies. Students explore one aspect of the subject and present findings.

**ELEM 695 INDEPENDENT STUDY IN EDUCATION: ELEMENTARY (1-4)** Research problems or study projects relevant to student interest and training. Prerequisite: Consent of Graduate Program Coordinator prior to registration.

**ELEM 701 DEVELOPING CRITICAL, CREATIVE AND PROBLEM-SOLVING THINKING (3)** Applied theory and research about thinking and brain function. Prerequisite: Teaching experience.

**ELEM 716 THE ADMINISTRATION OF THE ELEMENTARY SCHOOL (3)** Principles of elementary school administration, the administrator's role and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisites: 3 years' teaching experience, teacher certification and 9 graduate level credits.

**ELEM 770-774 SPECIAL TOPICS IN ELEMENTARY EDUCATION (1-3)** Study of a selected topic in education. Requirements and prerequisites vary according to topic. Prerequisite: Consent of Graduate Coordinator.

**ELEM 775 SEMINAR IN ELEMENTARY EDUCATION (3)** Scientific investigation of selected aspects of education, with emphasis on classroom application. Prerequisite: 9 graduate credits

**ELEM 781 SEMINAR IN ELEMENTARY SUPERVISION (3)** Role of the supervisor; supervisory practices and techniques. Prerequisite: 9 graduate credits.

**ELEM 797 INTERNSHIP IN ELEMENTARY EDUCATION (1-6)** Experience relating theory and practice in schools and clinics. Prerequisite: Twelve graduate credits.

**ELEM 898 MASTER'S THESIS IN ELEMENTARY EDUCATION (3)**

**ELEM 999 THESIS CONTINUUM (1)**

## ENGLISH

Co-Chairperson: Donald H. Craver

Co-Chairperson: Dan L. Jones

### ENGLISH COURSES (ENGL)

**ENGL 501 HISTORICAL LINGUISTICS (3)** An introduction to language typology and Indo-European Philology; historical development of linguistics up to the twentieth century. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 325.)

**ENGL 502 STRUCTURAL LINGUISTICS (3)** A study of the developments in linguistic theory in the twentieth century; major figures, De Saussure, Sapir, Bloomfield, Trubetzkoy, Chomsky. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 327.)

**ENGL 503 HISTORY OF AMERICAN ENGLISH (3)** Origins and history of American dialects; development of elements of vocabulary, sounds, and grammar which distinguish American English; standards of American English. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 329.)

**ENGL 511 MEDIEVAL BRITISH LITERATURE (3)** Emphasis on the mystical writers, *Piers Plowman*, the Gawain-poet, and Arthurian literature. Prerequisite: 2 ENGL courses. (Not open to students who have completed ENGL 340.)

**ENGL 512 BRITISH MEDIEVAL AND RENAISSANCE DRAMA (3)** Development of the drama, excluding Shakespeare, with emphasis on plays by Marlowe, Kyd, Jonson, Ford, and Webster. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 319.)

**ENGL 513 BRITISH RENAISSANCE LITERATURE (3)** Cultural and political backgrounds with emphasis on Skelton, Wyatt, Surrey, Spenser, Sidney, Raleigh, and Lodge. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 302.)

**ENGL 514 BRITISH LITERATURE OF THE LATER RENAISSANCE (3)** Major intellectual and literary currents of 1600-1660 in the poetry of Donne, Herbert, Marvell, Jonson, and Milton, and the prose of Bacon, Browne, Burton, and Hobbes. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 303.)

**ENGL 515 EIGHTEENTH-CENTURY BRITISH LITERATURE (3)** Social and intellectual backgrounds, literary trends, and significant authors, such as Swift, Pope, Fielding, Johnson, and Boswell, with emphasis on satire. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 345.)

**ENGL 516 LITERATURE OF THE BRITISH ROMANTIC PERIOD (3)** Major writers such as Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats from 1790 to 1830 with emphasis on the philosophic and social backgrounds. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 335.)

**ENGL 517 AMERICAN DRAMA (3)** American drama from the Colonial Period to the present, with emphasis on twentieth-century plays by O'Neill, Williams, Miller, Bullins, and Wilder. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 309.)

**ENGL 518 HISTORY AND LITERATURE OF THE OLD TESTAMENT (3)** The chief books of the Old Testament and the Apocrypha studied from a literary and historical point of view. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 328.)

**ENGL 519 FOLKLORE AND LITERATURE (3)** How and why literary artists draw plots, characters, themes, and style from ancient folk tradition: the anonymous oral narratives, songs, jests, and proverbs that circulate in all cultures. Focus on universal folkloric material in such works as the Bible, Aesop's *Fables*, the *Arabian Nights*, *Peer Gynt*, and *Harvest Home*. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 347.)

**ENGL 520 DEVELOPMENT OF THE BRITISH NOVEL: EIGHTEENTH CENTURY (3)** Georgian fiction and its social background, especially works by Defoe, Richardson, Fielding, Smollett, Steme, and Austen. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 423.)

**ENGL 521 DEVELOPMENT OF THE BRITISH NOVEL: NINETEENTH CENTURY (3)** Mainly Victorian fiction and its social background, especially works by Scott, the Brontës, Thackeray, Dickens, Eliot, and Hardy. Prerequisites: 2 ENGL courses. (UG & G) (Not open to students who have completed ENGL 423.)

**ENGL 522 DEVELOPMENT OF THE BRITISH NOVEL: TWENTIETH CENTURY (3)** Modern fiction and its social background, especially works by Joyce, Lawrence, Woolf, Forster, Waugh, and Greene. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 419.)

**ENGL 523 MODERN BRITISH POETRY (3)** Emphasis on Hopkins, Hardy, Yeats, Auden, Spender, Sitwell, Thomas, and Larkin. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 420.)

**ENGL 525 CHAUCER (3)** Major poems, especially *The Canterbury Tales* and *Troilus and Criseyde*. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 410.)

**ENGL 527 SHAKESPEAREAN COMEDY (3)** Shakespeare's development as a poet and dramatist in the comedies and romances. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 415.)

**ENGL 528 SHAKESPEAREAN TRAGEDY (3)** Shakespeare's development as a poet and dramatist in the histories and tragedies. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 416.)

**ENGL 529 MILTON AND THE HUMANIST TRADITION (3)** Major poetry and prose with emphasis on Milton's place in the humanist tradition. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 429.)

**ENGL 531 LITERATURE OF THE AMERICAN ROMANTIC PERIOD (3)** Social and political backgrounds, 1819-1860, important literary ideas, criticism, and major authors, such as Irving, Cooper, Emerson, Thoreau, Hawthorne, Melville, and Poe. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 427.)

**ENGL 532 LITERATURE OF THE AMERICAN REALISTIC PERIOD (3)** Major writers, such as Dickinson, Twain, Crane, and James; important secondary writers; social and political backgrounds; important literary ideas and criticism, 1860-1914. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 428.)

**ENGL 533 AMERICAN SHORT STORY (3)** Authors and schools, such as Irving, Hawthorne, Poe, Hemingway, Welty, Wright, Porter, local color writers, realists, and naturalists. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 435.)

**ENGL 535 DEVELOPMENT OF THE AMERICAN NOVEL: NINETEENTH CENTURY (3)** Major novelists, such as Cooper, Melville, Hawthorne, Twain, Howells, James, and Crane. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 445.)

**ENGL 536 DEVELOPMENT OF THE AMERICAN NOVEL: TWENTIETH CENTURY (3)** Major novelists, such as Fitzgerald, Hemingway and Faulkner. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 446.)

**ENGL 537 AMERICAN POETRY THROUGH FROST (3)** Puritan beginnings through the early twentieth century, with emphasis on Emerson, Poe, Whitman, Dickinson, and Frost. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 447.)

**ENGL 538 MODERN AMERICAN POETRY (3)** Poetic movements from the 1920's to the 1980's, and major poets, such as Eliot, Stevens, Williams, Lowell, Plath, and Rich. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 448.)

**ENGL 541 MODERN FICTION TO WORLD WAR II (3)** Work of the modern masters of fiction, with emphasis on Proust, Mann, and Joyce. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 408.)

**ENGL 542 MODERN FICTION SINCE WORLD WAR II (3)** Works of the significant writers—English, American, and Continental—of the past thirty years, including such figures as Grass, Robbe-Grillet, Solzhenitsyn, and Burgess. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 409.)

**ENGL 543 MYTH AND LITERATURE (3)** Literary reinterpretations of themes and figures from Greek and Roman mythology. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 326.)

**ENGL 544 THE CONTINENTAL NOVEL (3)** A study of major continental novels in translation. Emphasis will be upon related and comparative elements in the novels of writers of France, Germany,

Italy, and other European countries. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 323.)

**ENGL 546 MODERN DRAMA (3)** British, American, and European plays of the late nineteenth and twentieth century with attention to playwrights such as Ibsen, Strindberg, Chekov, Shaw, Pirandello, Brecht, Sartre, and Beckett. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 321.)

**ENGL 550 COMPARATIVE GRAMMAR (3)** Study of English grammar: traditional, structural, transformational. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 332.)

**ENGL 551 HISTORY OF THE ENGLISH LANGUAGE (3)** Changes and reasons for the changes in grammar, sound, and vocabulary of the language from Old English to modern times. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 430.)

**ENGL 552 STRUCTURE OF THE ENGLISH LANGUAGE (3)** A linguistic approach to sounds, forms, syntax, and usage. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 431.)

**ENGL 561 HISTORY OF LITERARY CRITICISM (3)** Major statements in literary theory from Aristotle to the present, including Horace, Sidney, Johnson, Coleridge, Eliot, and Frye. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 405.)

**ENGL 565 BRITISH AND AMERICAN PROSE (3)** Nonfictional prose, with emphasis on form and style. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 437.)

**ENGL 571 TOPICS IN WORLD LITERATURE (3)** Authors, periods, genres, or conventions. Variation in content from year to year; may be re-elected once. Prerequisites: 2 ENGL courses.

**ENGL 572 TOPICS IN BRITISH LITERATURE (3)** Authors, periods, genres, or conventions. Variation in content. May be re-elected once. Prerequisites: 2 ENGL courses.

**ENGL 573 TOPICS IN AMERICAN LITERATURE (3)** Authors, periods, genres, or conventions. Variation in content. Prerequisites: 2 ENGL courses.

**ENGL 575 TOPICS IN LINGUISTICS (3)** Topics and issues in contemporary linguistics theory, with particular attention to recent interdisciplinary subspecialty developments: psycholinguistics, sociolinguistics, pedagogical linguistics, etc. Topics to vary. Prerequisite: One linguistics course or consent of the instructor. May be re-elected once. (Not open to students who have completed ENGL 476.)

**ENGL 576 TOPICS IN MULTI-ETHNIC AMERICAN LITERATURE (3)** Possible topics include women in ethnic literature, Jewish writers, the Catholic novel. Variation in content. May be re-elected once. Prerequisites: 2 ENGL courses. (Not open to students who have completed ENGL 475.)

**ENGL 585-86 SEMINAR IN LITERARY STUDIES (3)** Intensive study of one area of British, American, or World literature, e.g., a specific author, period, school, or genre. Variation in content. May be re-elected. Prerequisite: Junior standing.

**ENGL 590 DIRECTED STUDIES IN ENGLISH (3)** Independent reading of a specific author, period, topic, problem, or school of literature. Topic selected by student in consultation with professor. May be repeated for a maximum of six credits only. Prerequisites: 18 hours in English, or 12 hours in English and 6 in a related discipline; minimum 3.00 average in English and the related discipline; consent of Department chair and instructor. (Not open to students who have completed ENGL 491.)

**ENGL 594 TRAVEL AND STUDY (3-6)** Places and topics to be selected by student in consultation with instructor. Prerequisites: 2 ENGL courses.

**ENGL 621 STUDIES IN ENGLISH LITERATURE (3)** Study of one major area of English Literature (author, period, movement, etc.)

Areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 623 STUDIES IN LITERARY CRITICISM (3)** Study of one major area of literary criticism (author, period, movement, etc.) Areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 625 STUDIES IN AMERICAN LITERATURE (3)** Study of one major area of American literature (author, period, movement, etc.) Areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 627 STUDIES IN WORLD LITERATURE (3)** Study of one major area of world literature (author, period, movement, etc.) Areas vary from semester to semester. Prerequisite: Graduate standing or consent of department.

**ENGL 631 STUDIES IN LINGUISTICS (3)** Topics in the technology and philosophy of language: descriptive grammar, psycholinguistics, sociolinguistics, etc. Topics vary from semester to semester. Prerequisites: Graduate standing or consent of department.

## FINANCE

### FINANCE COURSES (FIN)

**FIN 531 FINANCIAL MANAGEMENT (3)** Financial problems of business concerns. Instruments and institutions significant for financial management. Prerequisites: ACCT 202 or ACCT 206, junior/ major standing. Not open to students who have taken FIN 335.

**FIN 532 ADVANCED CORPORATE FINANCE (3)** Selected topics in managerial finance including cost of capital, capital-structure management, techniques of financing, and tools of financial decision-making. Prerequisite: FIN 331.

**FIN 535 INTERNATIONAL FINANCE (3)** Framework of international finance including balance of payments, foreign exchange, foreign money markets and financial management of the multinational corporation. Prerequisites: FIN 331, FIN 355.

## FRENCH

Chairperson: Jorge A. Giro

Graduate Departmental Coordinator: Foreign Languages: Jorge Giro

### FRENCH COURSES (FREN)

**FREN 501 FRENCH PHONETICS (3)** Correction of French pronunciation and analysis of spoken French based on phonological theory. Prerequisites: FREN 201, 202.

**FREN 502 APPLIED FRENCH LINGUISTICS (3)** Phonetics, morphology, syntax, points of interference. Linguistic study relating to methodology for French teachers. Conducted in French. Prerequisite: FREN 301-302 or equivalent.

**FREN 511 THE FRENCH NOVEL (3)** Study of the French novel and narrative techniques from the 17th century to the present day. Conducted in French. Prerequisites: FREN 321, 322 or equivalent.

**FREN 521 FRENCH LITERATURE OF THE SEVENTEENTH CENTURY I (3)** Selected works, most of them unabridged from the major writers of France's greatest century. Conducted in French. Prerequisites: FREN 321, 322 or equivalent.

**FREN 525 FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (3)** Principal works of the major writers with the concurrent literary and philosophical trends. Conducted in French. Prerequisites: FREN 321, 322 or equivalent.

**FREN 531 FRENCH LITERATURE OF THE NINETEENTH CENTURY (3)** The rise, flowering, and decline of Romanticism, with the contemporary writers outside the movement. Conducted in French. Prerequisites: FREN 321, 322 or equivalent.

**FREN 541 FRENCH LITERATURE OF THE TWENTIETH CENTURY (3)** The evolution from fin de siecle to the present day of the novel, the theatre, and poetry as reflections of the artistic and philosophical developments leading to the modern age. Shifting emphasis from semester to semester. Conducted in French. Prerequisites: FREN 321, 322 or equivalent.

**FREN 551-552 FRENCH POETRY I, II (3,3)** The development of French poetry from the Middle Ages to the present day. Conducted in French. Prerequisite: FREN 321, 322.

**FREN 561 FRENCH DRAMA (3)** Development of the French theatre from medieval to modern times; its literature and staging, illustrated by representative plays. Shifting emphasis from semester to semester. Conducted in French. Prerequisites: FREN 321, 322.

**FREN 570-579 SPECIAL TOPICS IN FRENCH (3)** Discussion of a central topic with changing emphasis from year to year. Prerequisite: FREN 321-322 or equivalent.

**FREN 583 SPECIAL TOPICS IN FOREIGN LANGUAGE TEACHING (3)** Studies in the area of language teaching techniques with changing emphasis from year to year. Prerequisite: Consent of the department.

**FREN 591 DIRECTED READINGS IN FRENCH LITERATURE (1-3)** Reserved for superior students under the guidance of a departmental advisor. Conducted in French. Prerequisite: at least three hours of literature study at the 400 level, consent of department chair.

**FREN 592 DIRECTED READINGS IN FRENCH (1-3)** Similar to FREN 491 with concentration on a different subject matter. Conducted in French. Prerequisite: at least three hours of literature study at the 400 level, consent of department chair.

**FREN 605 ETUDES ET TRAVAUX STYLISTIQUES (3)** Practice in writing and comparison of style of various writers. Intensive and detailed textual explanation. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 633 SEMINAR ON FRENCH CLASSICISM I (3)** The origins and underlying ideas of classicism. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 634 SEMINAR ON FRENCH CLASSICISM II (3)** The origins and underlying ideas of classicism. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 638 SEMINAR IN EIGHTEENTH CENTURY FRENCH LITERATURE (3)** The literature of the French Enlightenment, concentrating on one or two major authors. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 639 THE ROMANTIC ERA IN FRANCE (3)** Sources and theories of romanticism. Works of major French romantic writers. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 643-644 PERSPECTIVE DE LA CRITIQUE LITTERAIRE EN FRANCE (3)** A history of French literary criticism leading to the study of the various techniques and objectives of all literary criticism and analysis, ending in the application of these techniques by the student himself to selected works of French literature. Conducted in French. Prerequisite: Undergraduate degree in French or consent of department chairperson.

**FREN 670-679 SPECIAL TOPICS IN FRENCH LANGUAGE, LITERATURE AND CIVILIZATION (3)** Grandes Mouvements Littéraires en France du XIX et XX Siecles. Prerequisites: Undergraduate degree in French or consent of department chairperson.

## GENERAL EDUCATION

Chairperson: Royce Van Norman

### GENERAL EDUCATION COURSES (EDUC)

**EDUC 502 HISTORY OF EDUCATION (3)** Major developments, personalities, and movements in the evolution of education.

**EDUC 503 COMPARATIVE EDUCATION (3)** A study of patterns of education in different cultural settings with implications for the student of American education. Emphasis on cross-cultural, political, economic and social aspects of education. Prerequisite: EDUC 401 or equivalent or consent of instructor.

**EDUC 505 PHILOSOPHY OF EDUCATION (3)** Philosophic dimensions of the teaching learning process, as discriminated and discussed by major philosophers and education philosophers.

**EDUC 506 RECENT TRENDS IN TEACHING (3)** Recent teaching strategies, organizational patterns and curricular innovations for levels K-12 are examined. Students may pursue individualized projects. Prerequisite: Student teaching or senior standing with consent of instructor.

**EDUC 507 CONTEMPORARY ISSUES IN EDUCATION (3)** Seminar approach to current issues in education. Prerequisite: Student teaching or senior standing with consent of instructor. (No prerequisites when offered in day.)

**EDUC 509 FIELD STUDIES OF THE CHILD AND HIS COMMUNITY (2)** Planning and working with groups of children in approved social agencies or making extensive studies of recreational and non-recreational social agencies. Class discussions and field trips.

**EDUC 511 OPEN EDUCATION: PHILOSOPHY AND PRACTICE (3)** Philosophy and operation of open education schools, planning, management and evaluation. Emphasis on cognitive development. Prerequisite: Teaching experience.

**EDUC 512 OPEN EDUCATION: INTERPERSONAL RELATIONS (3)** Interaction in team teaching. Human Relations skill development for adults and children. Emphasis on affective domain. Prerequisite: Teaching experience and EDUC 411.

**EDUC 514 EDUCATIONAL TESTS AND MEASUREMENTS (2-3)** Problems in measurement; principles underlying choice of test instruments, survey of test literature; dealing with test data; correlation and interpretation of tests. (Not open to those who have had EDUC 315.)

**EDUC 515 EDUCATIONAL STATISTICS (3)** Designed as a practical course in statistics for the student in education. Emphasis is upon educational applications of descriptive statistics, including central tendency, variability, and association. Prerequisite: MATH 204, MATH 205 or equivalent.

**EDUC 517 CHILDREN'S LITERATURE (3)** Study of the world of literature for children through wide independent reading as well as examination of non-print materials. Criteria and aids for selection. Attention to authors, illustrators, awards and citations. The importance of literature in the curriculum and in the lives of children.

**EDUC 518 YOUNG ADULT LITERATURE (3)** Examination of literature as an expression of basic needs and ideas of youth through wide independent reading; studying criteria and aids for selection of books and other media; evaluating in terms of forces affecting society and the adolescent.

**EDUC 519 STORYTELLING (3)** The selection and presentation of stories for children. A study of sources for the storyteller in folklore, myth, legend, poetry, and the writings of storytellers. Development of skills in storytelling. Prerequisite: EDUC 417 or consent of instructor.

**EDUC 531 THE SCHOOL CURRICULUM (3)** An examination of curriculum patterns and practices; includes sociological, philosophical

and psychological factors which shape the curriculum. Prerequisite: Student teaching or professional experience in education.

**EDUC 545 HUMAN RELATIONS AND THE INDIVIDUAL (3)** Consideration given to: understanding one's self, the nature of prejudice and environmental factors which influence minority groups and cultures, and relationship of these factors to the development of meaningful educational programs. Prerequisites: For undergraduates: student teaching, and at least one course each in sociology and psychology. For graduates: teaching experience or certification.

**EDUC 547 NEW APPROACHES TO POSITIVE LEARNING CLIMATES (3)** A study of the theories and skills of various communication and climate setting strategies through problem solving and increased insight about interpersonal relationships. Prerequisite: Teacher certification or consent of the instructor.

**EDUC 549 CITIZENSHIP EDUCATION IN THE SCHOOL (3)** The development and implementation of activities for citizenship education in the school: philosophy, concepts, principles, techniques and resources for teacher and administrator. Prerequisites: EDUC 401 and ELEM 375 or equivalents, consent of instructor, teaching experience.

**EDUC 551 GUIDANCE IN THE PUBLIC SCHOOL (2-3)** Scope and function of a guidance program; the role of the classroom teacher in guidance.

**EDUC 553 SUPERVISORY PRACTICES IN TEACHER EDUCATION (3)** Experiences and study in developing particular skills and competencies for supervising quality laboratory/field experiences. Content is designed for supervising teachers, team leaders, and resource personnel. Prerequisite: Teaching experience. Graduates count this as a workshop elective.

**EDUC 555 INTRODUCTION TO CAREER DEVELOPMENT EDUCATION: THEORY AND PRACTICE (3)** Recent trends in career development school programs K-12; examining presently operating career programs; evaluating existing career materials; assessing attitudes toward work and the elements of career choice. Prerequisite: Undergraduate: six hours of psychology and senior standing; Graduate's, Bachelor's degree or equivalent.

**EDUC 560 TEACHING IN A MULTICULTURAL/MULTIETHNIC SOCIETY (3)** The course will provide teacher education students with the background knowledge, understandings, and techniques to deal effectively with children from diverse cultural and ethnic backgrounds. Prerequisite: 3 credits in Education or PSYC 201.

**EDUC 561 LANGUAGE AND THE URBAN CHILD (3)** Language theory in reference to psychological, sociological, and cultural effects in the classroom will be studied. Special emphasis will be given to the analysis of dialects and "standard" and "non-standard" speech patterns as well as practical classroom applications. Prerequisite: Teaching or student teaching experience, or consent of instructor.

**EDUC 563 SEX ROLE DEVELOPMENT IN THE SCHOOLS (2 or 3)** An examination of theories of sex role development and their impact on educational methods and curriculum. Degree candidates must obtain permission of their graduate advisor. Staffed by Education Division. Assistance of Women's Studies staff may be utilized. The course will carry three credits when scheduled for three hours meeting per week and two credits when scheduled for two hours meeting per week. Prerequisite: 6 credits in Education.

**EDUC 567 TEAM TEACHING WORKSHOP (3)** Conducted to assist teachers who are actively engaged in team teaching or will be participating as members of a team in the future.

**EDUC 570-589 SPECIAL TOPICS IN EDUCATION: (Topic to be named) (1-3)** In-depth study of a selected topic in Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time there is a topic

scheduled. Graduate credit only with approval of the graduate program coordinator. Each topic may be taken as a separate course.

**EDUC 594 TRAVEL AND STUDY EDUCATION: (PROJECT TO BE NAMED) (1-6)** Study abroad of educational facilities, programs or practices, or selected projects in educational topics. By specific arrangement with program chair and sponsoring instructors. Consent of graduate program coordinator required for graduate degree credit.

**EDUC 595 INDEPENDENT STUDY IN EDUCATION: (PROJECT TO BE NAMED) (1-4)** An opportunity for especially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: approval of appropriate program chair. Graduate credit by consent of graduate program coordinator only.

**EDUC 596 DIRECTED READINGS IN EDUCATION (1-4)** Independent readings in selected areas of Education, in order to provide for the individual a comprehensive coverage or to meet special needs. By invitation of the Department to major students. Prerequisite: approval of appropriate program chair. Graduate credit by consent of graduate program coordinator only.

**EDUC 601 EDUCATIONAL IDEAS IN HISTORICAL PERSPECTIVE (3)** Current trends and issues in education as reflecting and influencing the social, economic, and political forces in our cultural heritage. Prerequisite: EDUC 401 or EDUC 402 or EDUC 405.

**EDUC 603 SCHOOL LAW (3)** A study of the legal framework within which the public and non-public schools function. The course will give attention to the legal relationships among federal, state, and local governments; the legal status of school districts, boards of education, and school administrators; the legal status of non-public schools; and the law regarding all facets of the school program, staff, and pupils. Prerequisite: Student teaching or teaching experience.

**EDUC 607 HOME, SCHOOL, COMMUNITY (3)** The interaction between home and school and community in educational programs; survey and evaluation of techniques for working with parents; study of various agencies contributing to the education and well-being of children and youth at home and at school. Prerequisites: A course in Sociology and approval of Department of Education.

**EDUC 611 SUPERVISION OF STUDENT TEACHING (3)** An analysis of the roles of the cooperating teacher, college supervisor, and student teacher; current practices, issues, problems, trends and evaluation in laboratory experiences, current research. Prerequisite: Teaching experience.

**EDUC 614 EDUCATIONAL TESTS AND MEASUREMENTS FOR RESEARCH (3)** Principles underlying educational test instrumentation; problems in measurement; collection and interpretation of data; research application.

**EDUC 621 READING DISABILITIES (3)** Etiology of reading disabilities, observation and interview procedures, standard and informal tests, report writing, diagnosis and correction of reading difficulties. Prerequisite: One undergraduate course in the teaching of reading.

**EDUC 622 CORRECTIVE READING (3)** The psychology of reading; methods, principles, techniques, and materials utilizing classroom teacher in meeting atypical learning patterns. Experience in a practicum situation involving the development of skill in analysis and correction of reading disabilities. Prerequisites: ELEM 497 and ELEM 429 or ELEM 427 or consent of instructor (to provide for students who have had different background and/or experience in the field).

**EDUC 623 METHODS AND MATERIALS IN THE TEACHING OF READING (3)** Foundations of reading instructions. Methods, materials, and individualized reading designs essential to the organization and administration of a developmental reading program. Prerequisite: one undergraduate course in teaching of reading.

**EDUC 624 ORGANIZATION AND ADMINISTRATION OF READING AND STUDY SKILLS PROGRAMS IN HIGHER EDUCATION** (3) Principles, practices and problems of establishing reading/study skills programs. Prerequisite: six credits of reading courses or consent of instructor.

**EDUC 625 METHODS AND MATERIALS FOR TEACHING READING IN HIGHER EDUCATION** (3) Current methods and materials used in the teaching of reading and study skills. Prerequisite: six credits of reading courses or consent of instructor.

**EDUC 626 CLINIC PRACTICUM IN READING** (3-6) Supervised clinical experience with clients with reading disabilities. Prerequisites: EDUC 621 and EDUC 523.

**EDUC 627 EVALUATION OF READING RESEARCH** (3) Research and experimentation methodology. Prerequisites: A course in tests and measurements or statistics and consent of instructor.

**EDUC 628 DIAGNOSIS AND EVALUATION OF READING DISABILITIES** (3) Use of standardized and non-standardized instruments and procedures for evaluating reading disabilities. Prerequisites: EDUC 621 and EDUC 623.

**EDUC 629 TESTS AND MEASUREMENTS IN READING—ADVANCED** (3) Theory and specific techniques of assessing reading programs within the schools, using instruments for evaluating students' specific reading skills, developing a diagnostic instrument for assessing students' performance, and interpreting standardized reading tests. Interpreting and utilization of statistical results will be stressed. Prerequisite: one course in tests and measurements or educational statistics.

**EDUC 641 TRANSACTIONAL ANALYSIS IN EDUCATION** (3) Principles and theory of Transactional Analysis, and the relations of this knowledge to education. The application of Transactional Analysis and its related theories to the education setting. Prerequisite: Teacher certification or consent of instructor.

**EDUC 645 THEORIES IN EDUCATIONAL ADMINISTRATION** (3) Theoretical bases for educational administration. Prerequisite: Teaching experience, teacher certification.

**EDUC 646 HUMAN RELATIONS AND THE COMMUNITY** (3) Consideration of political, economic, social and educational factors as they affect minority cultures and implications for school and college programs. Prerequisite: Teaching experience or certification.

**EDUC 649 AMERICAN POLITICS AND EDUCATION** (3) The American political structure and its relation to policy making and administration of public education. Topics includes: educational opportunity, community responsibility and control, accountability, role of the courts, church-state relations, academic freedom. Prerequisites: EDUC 401 Foundations of Education, and POSC 103, Introduction to American National Government, or equivalent.

**EDUC 650 ANALYSIS AND MODIFICATION OF TEACHING BEHAVIOR** (3) The analysis of teaching learning situations to aid the advanced teacher education students to develop, refine and prescribe skills and strategies and field work. Prerequisites: teaching experiences, supervisory experiences, EDUC 453, Supervisory Practices in Teacher Education, and/or EDUC 611. Supervision of Student Teaching.

**EDUC 667 WRITING AS THINKING** (3) Research on the writing-thinking connection; self-analysis of thought processes used while writing; analysis of classroom methods for teaching writing and thinking. Prerequisites: SCED 603, SCED 605, or SCED 558 or consent of instructor.

**EDUC 670-674 SPECIAL TOPICS IN EDUCATION** (1-3) In-depth study of a selected topic in Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department. Each time a topic is scheduled. Approval by the appropriate graduate coordinator is required. Each topic may be taken as a separate course. Prerequisite: Varies with each topic.

**EDUC 685 INTERDISCIPLINARY STUDY IN PHILOSOPHY AND EDUCATION** (3) An interdisciplinary seminar with two aspects: current thought in the philosophy of a variety of academic fields and their implications for the broad field of education. Concentration will be upon development in the present century.

**EDUC 695 INDIVIDUALIZED STUDY** (3-6) Individually planned programs which will permit the student to engage in research and/or field experiences relative to his professional growth. Admission by application to the graduate program coordinator only.

**EDUC 701 REPRESENTATIVE AMERICAN EDUCATORS** (3) A biographical approach to the development of American education through selected groups of American educators whose contributions have significantly shaped its form and substance from the colonial period to the present. Prerequisite: EDUC 401, Foundations of Education, or the equivalent.

**EDUC 707 SEMINAR IN EDUCATIONAL CLASSICS I: ANCIENT PERIOD THROUGH THE RENAISSANCE** (3) An in-depth study of the classical works of selected authors. Concentration on liberalizing and humanistic influences. A seminar paper will be developed by each student. Prerequisite: EDUC 401, Foundations of Education, or EDUC 301, History of Education, or EDUC 601, Educational Ideas in Historical Perspective.

**EDUC 709 SEMINAR IN EDUCATIONAL CLASSICS II: RENAISSANCE TO THE PRESENT** (3) An in-depth study of the classical works of selected authors. Concentration on liberalizing and humanistic influences. Prerequisite: EDUC 401, Foundations of Education, or EDUC 301, History of Education, or EDUC 601, Educational Ideas in Historical Perspective.

**EDUC 729 SEMINAR IN READING** (3) Theories, research, and evaluation in the field of reading. Integration of theory and practice. Prerequisites: EDUC 621 and EDUC 623.

**EDUC 735 ADVANCED CLINIC PRACTICUM IN READING** (3) Supervised clinical experience for teachers of developmental, remedial and gifted clients, ages six to adult. Prerequisites: EDUC 621, EDUC 623 and EDUC 626.

**EDUC 741 SEMINAR IN LIABILITY FOR PROFESSIONALS IN EDUCATION** (3) In-depth discussions of a great variety of emerging legal cases appropriate to liability among professions in education. Emphasis will be given to such topics as: negligence, duty, abrogation of duty, foreseeability, in loco parentis, sovereign immunity, suspension and expulsion, professional negotiations, evaluations, and student rights and responsibilities. Prerequisite: One course in School Law.

**EDUC 745 SCHOOL BUDGETING AND FISCAL PLANNING** (3) Development of a budget on departmental, local school, system-wide, and state levels: implementation and evaluation of budgets; long- and short-term fiscal planning. Prerequisite: one course in administration.

**EDUC 761 INTRODUCTION TO RESEARCH IN EDUCATION** (3) Theory and methodology of educational research. Prerequisite: a course in statistics, or tests and measurements.

**EDUC 762 INTRODUCTION TO EDUCATIONAL EVALUATION** (3) Theory and methodology of education evaluation for systematic appraisal of process, program, staff or institution. Prerequisite: a course in statistics, or tests and measurements.

**EDUC 770-774 SPECIAL TOPICS IN EDUCATION** (1-3) In-depth study of a selected topic in Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the appropriate graduate coordinator is required. Each topic may be taken as a separate course.

**EDUC 797 INTERNSHIP IN EDUCATION** (1-6) An opportunity to relate theory and practice through experience in such settings as

educational institutions and clinics. Plans will be formulated in advance with the graduate coordinator and approved by the Dean of Graduate School. Prerequisite: Consent of graduate coordinator, who may require other prerequisites.

**EDUC 898 MASTER OF EDUCATION THESIS (3)** Investigation of selected topic in education.

**EDUC 899 THESIS CONTINUUM (1)**

## GENERAL STUDIES

### GENERAL STUDIES COURSES (GENL)

**GENL 501 TOPICS IN SOCIAL SCIENCE (3)** Issues and problems to be selected by the instructor and studied from the multiple approaches of various social sciences. Prerequisite: 15 hours in the social sciences.

**GENL 511 CREATIVE METHODS OF SOLVING PROBLEMS WORKSHOP (3)** The theory and practice of creative problem solving techniques. Analysis and practical application of creative processes with attention to skills in data gathering, problem analysis, idea production, solution evaluation, and strategy development for implementation. Individual and small group work will be employed. Prerequisites: PSYC 101 or EDUC 445 or GENL 203 or consent of instructor.

**GENL 521 INTERDISCIPLINARY WORKSHOP IN ASIAN STUDIES (3)** Intensive study of a chosen region of Asia, including its physical environment, historical development, government, society, culture, and their interrelationship. An interdisciplinary team of faculty experts will participate, and the region of Asia will vary according to demand. Prerequisite: Approval of coordinator.

**GENL 601 INTRODUCTORY SEMINAR IN LIBERAL STUDIES (3)** Introduction to research methodology. The use of scholarly resources and techniques to prepare the student for the composition of graduate level papers/projects in the Liberal Arts.

**GENL 602 CULMINATING SEMINAR IN LIBERAL STUDIES (3)** For graduate students in the Master of Arts in Liberal Studies degree program. A seminar course which seeks primarily to integrate effectively the knowledge and skills developed by the student through the program of study. Each student will undertake an individualized research project involving an analysis of the rationale for and content of the particular program theme. Open only to students in the Master of Arts in Liberal Studies degree program. Must be taken in the last semester of degree work.



## GEOGRAPHY AND ENVIRONMENTAL PLANNING

Chairperson: James E. Dilisio

Graduate Departmental Coordinator: Geography and Environmental Planning Program: Kenneth Haddock

### GEOGRAPHY AND ENVIRONMENTAL PLANNING COURSES (GEOG)

**GEOG 502 ENERGY RESOURCES (3)** Spatial patterns of traditional and alternative forms of energy will be analyzed. The many facets of the energy problem will be analyzed including physical deposits, economic variables, public policy implication, and geographical patterns. Prerequisite: 6 hours of Geography or consent of instructor.

**GEOG 503 SOILS AND VEGETATION (3)** A resource study of the world's soils and plant formations with emphasis placed upon their genesis and spatial differentiations. Prerequisite: 6 hours of Geography, CHEM 101, BIOL 101 or 105.

**GEOG 504 INTERPRETATION OF AERIAL PHOTOGRAPHS (3)** Reading and interpretation of aerial photographs. The application of the aerial photograph in the fields of geography, geology, and photogrammetry.

**GEOG 505 CARTOGRAPHY AND GRAPHICS I (3)** Study in design, construction, and effective application of maps and charts for analysis and publication; practical exercises in the use of cartographic tools, materials, and techniques.

**GEOG 506 CARTOGRAPHY AND GRAPHICS II (3)** Continued exercises in map graphics and areal distribution maps. New techniques in presentation of graphic data and spatial relationships. Prerequisite: GEOG 323.

**GEOG 508 TECHNIQUES AND MATERIALS FOR GEOGRAPHY TEACHERS (3)** A systematic review of geographic concepts in relation to interdisciplinary studies in the physical and social sciences. Examination of the content of geography and problems of presentation.

**GEOG 509 URBAN DESIGN—MAN-SPACE-ENVIRONMENT (3)** The physical planning process at the immediate, perceptual level. The relation of environment and behavior is explored, different urban areas are analyzed and a short design problem will be assigned. Prerequisite: GEOG 101-102 or consent of instructor.

**GEOG 510 HISTORICAL GEOGRAPHY OF URBANIZATION (3)** Spatial and temporal development of urbanization and urban morphology from the rise of civilization in the ancient Near East to the contemporary post industrial city. The entire scope of urban functions is surveyed, with the emphasis on the city as a man-made environment. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 511 CULTURAL GEOGRAPHY (3)** Study of origins and diffusion of cultures and the resulting impact in creating the world's contrasting cultural landscapes. Not open to those who completed GEOG 221. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 512 ECONOMIC GEOGRAPHY (3)** Designed to explain the location of economic activities through a series of principles and theories. Emphasis is on the various sectors of the economy, transportation, and economic development. Not open to those who completed GEOG 231. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 513 SPATIAL ORGANIZATION OF ECONOMIC ACTIVITY (3)** Provides an intermediate level coverage of the organization of the economy of space. Draws from basic regional economics to illustrate and explain the geographical patterns of land use, industry, service activities, and regional patterns of economic development. Prerequisite: Six hours of geography including GEOG 359.

**GEOG 514 ADVANCED PHYSICAL GEOGRAPHY (4)** Detailed analysis of characteristics, distribution, and geographical significance of the earth's landforms. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 515 CLIMATOLOGY (3)** Character, causes, and distribution of climatic types. Emphasis upon world patterns. Students may be required to do field work. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 516 QUANTITATIVE METHODS IN GEOGRAPHY (3)** Focus on statistical problems associated with the analysis of geographic data. Emphasis on the unique spatial problems of point pattern analysis, areal association, and regionalization. Prerequisite: Six hours of geography, MATH 119, or consent of instructor.

**GEOG 517 DESCRIPTIVE METEOROLOGY (4)** An introduction to the various meteorological elements. Emphasis is placed on the interaction of temperature, pressure, wind, and moisture in creating weather patterns. Three hours of lecture and two hours of laboratory. Field work may be required. Prerequisite: Six hours of Natural Science or Geography or the equivalent.

**GEOG 519 POLITICAL GEOGRAPHY (3)** Effect of political groupings upon man's use of the world, and the influence of the geographic base upon political power. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 520 POPULATION GEOGRAPHY (3)** General population theory, data sources for population geographers, and the processes of fertility, mortality, and migration. Patterns of population growth and change viewed from both temporal and geographical perspectives. Prerequisite: Six hours of Geography or consent of instructor.

**GEOG 522 URBAN SYSTEMS I (3)** Survey of the structure, functions, forms and development of urban units. Emphasis upon the locational features of social, economic, and cultural phenomena. Field work. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 551 GROWTH OF GEOGRAPHIC THOUGHT (3)** History, nature, and methodology of geography as a discipline. Analysis of schools of geographic thought; critical evaluation of important geographic work. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 552 PLANNING IMPLEMENTATION (3)** A study of the techniques involved in carrying out an urban plan. Zoning, subdivision control, public works policy and tax structures will be considered. The relation of planning to the political process will be emphasized. Prerequisite: GEOG 391 and GEOG 392 or equivalent and consent of instructor.

**GEOG 553 COMPREHENSIVE PLANNING (3)** The integration of separate urban systems into the comprehensive design of an urban region. Special emphasis will be placed on neighborhood, community and town planning. Field work may be required. Prerequisite: GEOG 391 and GEOG 392 or equivalent and consent of instructor.

**GEOG 557 STUDIES IN NATURAL HAZARDS (3)** The nature, frequency of occurrence, and distribution of environmental hazards and their impact on humans. Prerequisite: Six hours of Geography or consent of instructor.

**GEOG 558 TECHNOLOGY AND THE ENVIRONMENT: A GLOBAL PERSPECTIVE (3)** Selected studies of the impact of technology on the earth's natural systems. The significance of the global viewpoint in the assessment of local, national, and international environmental problems. Prerequisite: Six hours of Geography or consent of instructor.

**GEOG 559 GEOGRAPHICAL ASPECTS OF POLLUTION (3)** A systematic study of the spatial aspects of air and water pollution, with special emphasis on pollution in the Greater Baltimore area. Field trips will be conducted to pollution sites and pollution control agencies within the local area. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 560 GEOGRAPHY OF ANGLO AMERICA (3)** Physical and cultural landscapes of the United States and Canada including patterns of economic development of each region and their relationship to their environmental setting. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 561 GEOGRAPHY OF MARYLAND (3)** A geographical study of the Middle Atlantic region emphasizing Maryland in its megapolitan setting. Much attention will be given to the human and physical elements which have led to the prominence of this region. A supervised research paper will be an important part of this course. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 562 GEOGRAPHY OF AFRICA (3)** A systematic and regional approach to the study of people and environment of Africa, south of the Sahara. Special focus is placed on the distribution of natural resources and the historical-political development of each country as important background for the understanding of current African affairs. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 564 GEOGRAPHY OF EAST ASIA (3)** Regional studies of the physical and cultural foundations in China, Japan, and Korea. Emphasis upon human and economic resources, and role in world affairs. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 565 GEOGRAPHY OF THE MIDDLE EAST (3)** Analysis of Southwest Asia and North Africa, including major natural and cultural resources, related patterns of spatial organization, economic and political development, and associated problems. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 566 GEOGRAPHY OF EUROPE (3)** Regional analysis and appraisal of the human geography and natural resources of Europe. Problems of nationality, economic development, and cultural conflicts. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 567 GEOGRAPHY OF THE USSR (3)** Physical and cultural patterns and their bearing on the Soviet Union as a world power. Regional distribution and use of natural and human resources in agriculture and industry. Problems in economic development and production. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 568 GEOGRAPHY OF LATIN AMERICA (3)** Analysis of Latin America will be focusing on the interrelationships between physical and cultural elements which provide a diversity of human habitats throughout the region. Prerequisite: Six hours of geography or consent of instructor. May be repeated for a maximum of 6 credits.

**GEOG 570-579 SEMINAR: SELECTED TOPICS IN GEOGRAPHY (3)** Reading and research in selected topics in the field of geography. Seminar topics will be announced. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 580 SEMINAR: GEOGRAPHY AND MAN IN THE TWENTIETH CENTURY (3)** Selected studies on the role of geographic factors in economic and political affairs and in the development of technology. Analysis of contributions of applied geography to the solution of urban and rural problems. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 581 SEMINAR: STUDIES IN ENVIRONMENTAL QUALITY (3)** Studies of selected problems in the quality of man's physical and cultural environments. Readings, discussions, and research on geographical and other aspects of man's use of natural resources and major forms of environmental pollution. Prerequisite: Six hours of Geography or consent of instructor.

**GEOG 582 GEOGRAPHY/ENVIRONMENTAL PLANNING INTERNSHIP (1-6)** Supervised placement and research in selected public and private agencies at appropriate institutions. May be repeated up to a maximum of six credits. Not open to those who completed 6 credits in GEOG 479. Prerequisite: Consent of chair and six hours in geography. May be repeated for a maximum of 6 credits.

**GEOG 583 FIELD GEOGRAPHY (2-6)** Practical laboratory experience in techniques in the collection and analysis of data by observations, measurements, mapping, and photographic records. Such techniques are to be applied to selected geographic problems. Prerequisite: Six hours of geography or consent of instructor.

**GEOG 584 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by departments and instructors sponsoring the program. For complete information contact the chair of the department. May be repeated for a maximum of 6 credits. Prerequisite: Consent of instructor. (UG & G)

**GEOG 585 DIRECTED READING IN GEOGRAPHY (3)** Independent reading in selected areas of geography. Open by invitation of the geography department to students taking a major or minor in geography. Prerequisite: 15 hours in geography and a minimum average of 3.0 in geography. May be repeated for a maximum of 6 credits.

**GEOG 586 INDEPENDENT STUDY IN GEOGRAPHY (1-6)** Independent research, study, or field experience under supervision of a member of the Geography faculty. Designed for advanced students who wish to conduct independent investigations on aspects of Geography which are of special interest or not covered in other courses. Registration arranged with department chairperson. Prerequisite: Advanced undergraduate standing with at least 18 hours in geography or graduate standing. May be repeated for a maximum of 6 credits.

**GEOG 601 GEOGRAPHIC METHODOLOGY AND TECHNIQUES: TRENDS AND PROSPECTS (3)** Significant developments in the evolution of geographic thought, techniques and methodology. Prerequisite: Graduate standing.

**2205.621 RESEARCH TECHNIQUES (3)** Investigation of the primary sources of information in geography and to learn the nature of original investigation. Prerequisite: Graduate Standing.

**GEOG 631 REMOTE SENSING (3)** Remote sensing systems. Interpretation and use of their data products, with emphasis on Land Satellite Imagery (Landsat). Prerequisite: Consent of department.

**GEOG 641 APPLIED PHYSICAL GEOGRAPHY (3)** Physical environment as it influences and is influenced by human activities. Prerequisite: GEOG 101 (or equivalent).

**GEOG 642 ENVIRONMENTAL POLLUTION (3)** World distributions of major categories of pollution—air, water, chemical, noise, solid waste, and nuclear—and their environmental implications. Mandatory field trips. Prerequisite: Consent of department.

**GEOG 651 SEMINAR IN APPLIED POPULATION GEOGRAPHY (3)** Focus on obtaining, interpreting, and utilizing population data for applied purposes. Prerequisite: Consent of instructor.

**GEOG 652 SEMINAR IN MEDICAL GEOGRAPHY (3)** Medical geographic principles and techniques applied to the study of health issues in contemporary society. Emphasis on tools, methodology, and problem solving situations. Prerequisites: GEOG 375 or consent of instructor.

**GEOG 661 STUDIES IN ECONOMIC GEOGRAPHY (3)** The study of selected geographical topics dealing with spatial distributions of economic activities. Topics will be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 671 STUDIES IN PHYSICAL GEOGRAPHY (3)** Selected geographical topics dealing with physical landscape phenomena, especially with regard to distribution, relationships, and significance to man. Topics will be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 672-679 SPECIAL TOPICS IN GEOGRAPHY AND ENVIRONMENTAL PLANNING (3)** Topics in geography or environ-

mental planning. Varies each semester. Prerequisite: Consent of department.

**GEOG 681 SEMINAR IN POLITICAL GEOGRAPHY (2-6)** Special subjects dealing with geography of international politics, e.g., boundary problems, global strategy, space, sovereignty. Topics to be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 683 SEMINAR: ENVIRONMENTAL PROBLEMS IN MARYLAND (3)** Individual research on a selected environmental problem in Maryland. Prerequisite: Consent of department.

**GEOG 691 URBAN GEOGRAPHY STUDIES (2-6)** Selected topics dealing with the application of geography to planning, retail and industrial location, and trade analysis. Topics to be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department

**GEOG 701 LAND USE STUDIES (2-6)** Selected problems on urban, rural and rural-urban landscapes which consider and account for geographic differences in land utilization. Topics will be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 771 SEMINAR IN REGIONAL GEOGRAPHY (2-6)** Description, analysis and interpretation of natural and cultural phenomena in certain significant geographic regions. Seminar topics will be announced. No more than six semester hr. may be applied toward a degree. Prerequisite: Consent of department.

**GEOG 797 RESEARCH (2-6)** Investigation of problems based upon field and library study, which will contribute to geographical knowledge. Designed for Master's thesis credit or individual research. Prerequisite: Consent of department.

**GEOG 898 MASTER'S THESIS (3-6)** Prerequisites: GEOG 621 and consent of department.

**GEOG 899 THESIS CONTINUUM (1)**

## GERMAN

Chairperson: Jorge A. Giro

Graduate Departmental Coordinator: Foreign Languages: Jorge Giro

### GERMAN COURSES (GERM)

**GERM 527 GERMAN CLASSICISM (3)** Goethe, Schiller, Lessing and others. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 531 ROMANTICISM (3)** German literature during the Romantic era (1790-1830). Hoelderlin, Novalis, Brentano, Tieck, Grillparzer. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 541 MODERN GERMAN LITERATURE (3)** The modern masters; Kafka, Mann, Hesse, Rilke, Brecht. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 542 GERMAN LITERATURE SINCE 1945 (3)** Themes and movements since World War II. Poetry: Eich, Enzensberger, Celan, Bachmann; prose fiction: Boell, Grass; drama: Borchert, Duerrenmatt, Frisch. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 561 GERMAN DRAMA OF THE 19TH AND 20TH CENTURIES (3)** The development of modern German drama in the successive literary movements, beginning with Kleist. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 565 GOETHE'S FAUST (3)** A study of the background, themes and structures of this masterpiece. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 570-579 SPECIAL TOPICS IN GERMAN (3)** Discussion of a central topic with changing emphasis from year to year. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 581 THE GERMAN NOVELLE (3)** The theory and development of the Novelle in German literature from Goethe to the present. Conducted in German. Prerequisite: GERM 321 or equivalent.

**GERM 583 SPECIAL TOPICS IN FOREIGN LANGUAGE TEACHING (3)** Studies in the area of language teaching techniques with changing emphasis from year to year. Prerequisite: Consent of department.

**GERM 591-592 DIRECTED READINGS IN GERMAN (1-3, 1-3)** Reserved for superior students under the guidance of a departmental advisor. Content related to student's previous program. Prerequisite: at least three hours of study at the 400 level, consent of department chair.

**GERM 670-679 SPECIAL TOPICS IN GERMAN (3)** Discussion of a central topic concerning literature and society with changing emphasis from year to year. Prerequisite: Undergraduate degree in German or Consent of department chairperson.

## HEALTH SCIENCE

Chairperson: Neil Gallagher

Graduate Departmental Coordinator: Susan Radius

### HEALTH COURSES (HLTH)

**HLTH 501 SEX EDUCATION AND FAMILY LIFE (3)** Designed for the present and future teacher, the course includes an overview of human sexuality. Emphasis will be placed on the need for education about sexuality, theories of sexual education, selection of content, sequential unit planning, survey and availability of A-V materials and the qualifications of the effective sex educator. Prerequisites: HLTH 221 or HLTH 101, PSYC 101, BIOL 101.

**HLTH 502 HEALTH SEMINAR (3)** Examination of recent trends in school and community health, reports of student projects, consultation with experts in health field. Prerequisite: Consent of department chairperson.

**HLTH 503 HEALTH EDUCATION CURRICULUM (3)** Development of school health education programs based on health needs and problems of school children. Prerequisites: HLTH 101, HLTH 201.

**HLTH 505 DRUGS IN OUR CULTURE (3)** An in-depth review of harmless, harmful, useful and useless substances which may affect behavior or mood; the interaction of psychological, sociological and physiological components included. Prerequisite: HLTH 101.

**HLTH 511 HEALTH AND LATER MATURITY—THE AGING PROCESS (3)** An approach to the conservation of human resources with emphasis on understanding attitudes and practices related to health in later maturity. Designed for students with a personal or professional interest in the field. Prerequisite: Six hours of health and/or behavioral science or consent of instructor.

**HLTH 551 ECOLOGICAL ASPECTS OF HEALTH (3)** An examination of the interrelationship between man and his environment. Emphasis is placed upon health aspects of pollution, housing, sanitation, radiation, behavioral disorders and epidemiology. Prerequisite: BIOL 101 or 110; HLTH 101 or consent of instructor.

**HLTH 570-579 HEALTH WORKSHOP (3)** For teachers, administrators, and individuals concerned about health related fields. Contemporary health aspects are considered with emphasis on implementation of positive behavior aimed at improving the health of the individual and the community. Students who elect this course for six credits will participate in two workshops. Enrollment is limited to 25. Prerequisite: HLTH 101 or consent of instructor.

**HLTH 591 HEALTH DIRECTED READINGS (1-3)** Independent reading in health or related disciplines. Prerequisite: A minimum of 10 credits in health and consent of department chair.

**HLTH 594 TRAVEL AND STUDY (3)** An examination of various types of health care delivery in the countries and cities visited in comparison with that of the United States. For complete information contact chair of the department. Prerequisites: HLTH 101 and either HLTH 201 or HLTH 202 or consent of instructor.

**HLTH 595 INDEPENDENT STUDY (3)** Directed study on specific problems in health and related fields. Prerequisite: Consent of department chair and 12 hours in health.

**HLTH 601 PROBLEMS IN SCHOOL HEALTH (3)** Structure, organization, scope, content and practices in school health as revealed through literature and research.

**HLTH 611 CURRENT LITERATURE IN HEALTH (3)** Research findings concerning health knowledge, attitudes, behavior, and educational techniques. A comprehensive review of health-related periodicals. Prerequisite: Consent of department.

**HLTH 613 ANALYSIS OF PHYSIOLOGICAL CONCEPTS (3)** Physiological factors that affect human efficiency before, during and after exercise, including: metabolism, circulation, respiration, muscular physiology, endocrine system, ergogenic aids, environmental factors, etc. Prerequisite: Consent of department.

**HLTH 615 COMMUNITY HEALTH: QUALITATIVE & QUANTITATIVE ELEMENTS (3)** Vital and health statistics, population dynamics, epidemiology, quantitative models and simulation for health systems planning/evaluation. Prerequisite: Consent of department chairperson.

**HLTH 617 HEALTH ADMINISTRATION (3)** Dynamics of the health industry: concepts of management and administration. Prerequisite: Graduate standing in health science.

**HLTH 625 RESEARCH METHODS IN HEALTH (3)** Research and statistical designs related to health science and allied health disciplines. Prerequisites: Basic statistics, or tests and measurements and graduate standing, or consent of instructor.

**HLTH 631 PROGRAM PLANNING IN HEALTH EDUCATION (3)** Planning models in health with integration to program planning for health information and health promotion. Skills developed in proposal writing. Prerequisites: Admission to graduate program and HLTH 639.

**HLTH 633 HEALTH CARE SYSTEMS (3)** Development of the American health care system and trends in organization, administration, funding, and legislation. Prerequisite: Graduate standing.

**HLTH 635 EDUCATIONAL STRATEGIES FOR HEALTH (3)** A seminar analyzing application of education and social science theories for health promotion and health education. Prerequisite: HLTH 639 or HLTH 601.

**HLTH 637 SKILL DEVELOPMENT: LEADERSHIP IN THE HEALTH CARE SETTING (3)** Didactic and experiential activities in community health education with emphasis on human interaction and leadership skills. Prerequisites: Admission to M.S. Program (or other graduate students with permission), HLTH 639.

**HLTH 639 EDUCATION AND TRAINING IN HEALTH CARE (3)** The adult learner and health education. Recommended as the first course in all Health Science Program concentrations. Prerequisite: Admission to program.

**HLTH 641 PATIENT EDUCATION: INTRODUCTION AND APPLICATION (3)** Education of the patient in terms of personal health behavior in relation to chronic and communicable disease. Emphasis on local patient education programs. Prerequisite: HLTH 639.

**HLTH 643 HEALTH EDUCATION: CURRICULUM DEVELOPMENT AND SUPERVISION (3)** Methods and techniques for

designing and implementing school health education. Prerequisite: HLTH 639 or consent of instructor.

**HLTH 651 PLANNING AND MARKETING HEALTH IN BUSINESS AND INDUSTRY (3)** Health promotion and delivery in the profit and not-for-profit sectors. Concepts and application of planning and marketing health in various settings. Prerequisites: HLTH 617, HLTH 633, HLTH 639 and consent of instructor.

**HLTH 670-679 SPECIAL TOPICS (3)** Focuses on currently important health topics: fitness in a hypokinetic world, aging, death, alcohol and its abuse, consumerism, disease, weight control, value clarification, developing a personal philosophy of health. Prerequisite: Six semester hours in health or permission of department.

**HLTH 689 FIELD EXPERIENCE (3-6)** Supervised on-site experience in the following community health settings: hospital, clinic, agencies, business/industry. Prerequisites: HLTH 639, graduate standing and consent of graduate coordinator.

**HLTH 691 DIRECTED READINGS IN HEALTH (3)** Individual study of a problem in health through consultation with faculty members. Prerequisite: Consent of department.

**HLTH 785 GRADUATE SEMINAR IN HEALTH (3)** Analysis of research trends and issues in health education. Student presentation of research designs and projects. Professional membership and ethics. Prerequisites: HLTH 625, HLTH 639.

**HLTH 787 HEALTH SCIENCE INTERNSHIP (9)** Three month supervised field experience in an agency or hospital. Prerequisites: HLTH 639, HLTH 615, HLTH 625, HLTH 631 and consent of graduate coordinator.

**HLTH 897 GRADUATE PROJECT IN HEALTH SCIENCE (3)** Individual study and preparation of a project which is oriented toward the application of specific techniques in health education. Prerequisites: HLTH 625, HLTH 785.

**HLTH 898 MASTER'S THESIS IN HEALTH (3)** An original investigation using an acceptable research method and design conducted under the direction of one or more faculty members. Prerequisites: HLTH 639, HLTH 625, HLTH 785.

## HLTH 899 THESIS CONTINUUM (1)

# HISTORY

Chairperson: Mary Catherine Kahl

## HISTORY COURSES (HIST)

**HIST 501 ANCIENT NEAR EASTERN CIVILIZATIONS (3)** The civilizations of Mesopotamia and Egypt and the peripheral developments in Syria-Palestine and Asia Minor. Prerequisite: HIST 101 or consent of instructor.

**HIST 503 HELLENISTIC CIVILIZATION (3)** The civilization that arose in the Mediterranean Basin after the conquests of Alexander and the Roman Empire within this context. Prerequisite: HIST 101 or consent of instructor.

**HIST 504 ANCIENT GREEK CIVILIZATION (3)** The civilization of classical Greece, including the Minoan and Mycenean bronze age antecedents, to 362 B.C. Prerequisite: HIST 101 or consent of instructor.

**HIST 505 ROMAN CIVILIZATION (3)** The civilization of ancient Rome from the foundation of the city to the collapse of the Roman empire in the West. Prerequisite: HIST 101 or consent of instructor.

**HIST 509 TRADITIONAL INDIA: ITS HISTORICAL DEVELOPMENT (3)** Development of the history and culture of India from prehistoric times until the beginnings of European dominance in the eighteenth century. Prerequisite: Six credits in history or consent of instructor.

**HIST 510 HISTORY OF MODERN INDIA (3)** The history of the Indian subcontinent since 1750, stressing the rise of British power, the colonial experiences, the development of nationalist movements, and the problems of independence in present-day India, Pakistan, and Bangladesh. Prerequisite: Six credits in history or consent of instructor.

**HIST 511 HISTORY OF MODERN SOUTHEAST ASIA (3)** The development of Burma, Thailand, Malaysia, Indonesia, Cambodia, Vietnam and the Philippines since 1500, with emphasis on the colonial experience and development of modern nationhood. Prerequisite: Six credits in history or consent of instructor.

**HIST 513 REVOLUTIONARY CHINA (3)** A study of the history of revolution in China beginning with the nineteenth century backdrop to revolution and analyzing the Nationalist-Communist struggles and the on-going revolution in post-1949 China. Prerequisite: HIST 116 or six credits in history.

**HIST 515 MODERN JAPAN (3)** A study of the nineteenth century modernization of Japan, the road toward war against the U.S., the aftermath of the war and Japan's phenomenal economic growth in the post-war period. Prerequisite: HIST 117 or six credits in history or consent of instructor.

**HIST 521 HISTORY OF MEXICO: PRE-COLUMBIAN AND COLONIAL (3)** The political, economic, social, and cultural developments from early pre-Columbia civilizations to the movement for independence. Prerequisite: Six credits in lower division history.

**HIST 522 HISTORY OF MEXICO: NATIONAL PERIOD (3)** The political, economic, social, and cultural developments from independence to the present. Prerequisite: Six credits in lower division history.

**HIST 523 THE SOCIAL HISTORY OF LATIN AMERICA (3)** The history of social problems, popular culture, political movements, and revolutionary changes in modern Latin American societies. Emphasis on the effects of social changes on men and women in the 19th and 20th centuries. Prerequisite: Six hour in history, or a course in Latin American history, or consent of instructor.

**HIST 524 HISTORY OF INDIANS IN LATIN AMERICA: MAYA, AZTEC AND INCA (3)** An ethno-historical examination of the social, economic and political aspects of some of the major indigenous civilizations of Latin America prior to the arrival of the first Europeans, with special attention to Maya, Aztec and Inca civilizations. Prerequisite: Three credits in history or anthropology or consent of instructor.

**HIST 525 BUSINESS HISTORY OF LATIN AMERICA (3)** A study of business, commerce, industry, finance and agriculture in Latin America from the colonial period to the present. Prerequisite: Three credits in history and either consent of instructor or junior standing.

**HIST 531 AMERICAN MILITARY HISTORY SINCE 1865 (3)** Campaigns, tactics, and institutional development of the armed forces in the context of American politics and diplomacy with emphasis on the period since 1917. Prerequisite: HIST 146.

**HIST 533 THE AMERICAN COLONIES: 1492-1763 (3)** Founding and the political, economic, and social development of the American colonies. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

**HIST 534 THE AMERICAN REVOLUTIONARY PERIOD: 1763-1789 (3)** From the end of the Seven Years' War to the ratification of the Constitution. Prerequisite: HIST 145 or HIST 241 or consent of instructor.

**HIST 535 THE EARLY NATIONAL PERIOD (3)** The United States from the Constitutional Convention to the Election of 1820. The Federalist Decade and the Jeffersonian Era. Prerequisite: HIST 145.

**HIST 536 THE JACKSONIAN ERA (3)** The United States from 1815 to 1845; political, social, and economic currents of the period. Prerequisite: HIST 145.

**HIST 537 THE CIVIL WAR (3)** Sectionalism, the coming of the war, and the war years. Emphasis on political, economic, and social issues. Prerequisite: HIST 145.

**HIST 538 THE ERA OF RECONSTRUCTION (3)** Political, economic, and social study of the Reconstruction era, the war years to 1877, and its aftermath. Prerequisite: HIST 145.

**HIST 539 THE U.S. 1865-1901: AGE OF ENTERPRISE (3)** Industrialization of the United States, the rise of big business and an examination of resulting problems in economic, social and political life. Prerequisite: HIST 145 or HIST 146.

**HIST 540 THE U.S. 1892-1920: AGE OF REFORM (3)** America's efforts to deal with the political, social, and economic problems of industrial life; emphasis on the Populist movement; imperialism and the Spanish-American War; the administrations of Theodore Roosevelt, William Howard Taft, and Woodrow Wilson. Prerequisite: HIST 145 or HIST 146.

**HIST 541 THE F.D.R. ERA (3)** History of the United States from the 1920's through World War II, with emphasis on the presidential years of Franklin D. Roosevelt. Prerequisite: HIST 146.

**HIST 542 RECENT AMERICAN HISTORY: 1945-1975 (3)** History of the United States from World War II through the mid 1970's, including political, social, economic, and diplomatic developments. Prerequisite: HIST 146.

**HIST 543 AMERICAN INTELLECTUAL AND RELIGIOUS HISTORY (3)** Analysis of the main religious and philosophical issues in United States history, especially Puritanism, Enlightenment, Transcendentalism, Darwinism and Pragmatism. Prerequisite: A course in United States history or American literature.

**HIST 544 SOCIAL HISTORY OF THE UNITED STATES TO 1865 (3)** History of American life from the seventeenth century to the Civil War, focusing on problems relating to social structure, popular culture, family, religious and educational institutions. Prerequisite: HIST 145.

**HIST 545 SOCIAL HISTORY OF THE UNITED STATES SINCE 1865 (3)** History of American life from the Civil War to the present, focusing on problems relating to social structure, popular culture, family, religious and educational institutions. Prerequisite: HIST 146.

**HIST 546 A HISTORY OF AMERICAN BUSINESS (3)** A study of industry, finance, commerce and agriculture from the Civil War to the present. Prerequisite: Three credits in history and either consent of instructor or Junior standing.

**HIST 547 CONSTITUTIONAL HISTORY OF THE UNITED STATES TO 1868 (3)** Development of American constitutionalism in theory and practice to 1868. Prerequisite: HIST 145

**HIST 548 CONSTITUTIONAL HISTORY OF THE UNITED STATES SINCE 1868 (3)** Continuation of HIST 367 Since 1868. Prerequisite: HIST 146.

**HIST 549 DIPLOMATIC HISTORY OF THE UNITED STATES TO 1900 (3)** Evolution of the American national interest in foreign relations with Europe, Latin America, and the Far East from colonial times to 1900. Emphasis upon the changing character and role of objectives, policies, commitments, and forces. Prerequisite: HIST 145 or HIST 146.

**HIST 550 DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1900 (3)** Continuation of HIST 369 to the present with added interest in the emergence of the United States as a major world power. The role of the United States in modern warfare, world wide economic and financial affairs, overseas expansion, the diplomatic impact of conflict in ideologies, and current international crisis. Prerequisite: HIST 145 or HIST 146.

**HIST 551 EARLY AMERICAN FRONTIER (3)** The westward movement and the effect of the frontier process on social, economic, and political institutions of the United States and the attitudes of the American people to 1850. Prerequisite: HIST 145.

**HIST 552 THE FAR WESTERN FRONTIER (3)** The expansion into the Trans-Mississippi West and the impact of the frontier process on the attitudes of the American people and on the social, economic, and political institutions of the United States in the nineteenth and twentieth centuries. Prerequisite: HIST 146.

**HIST 553 THE CITY IN AMERICAN HISTORY (3)** The development of the city and its impact on American social, cultural, intellectual, political, and economic life. Prerequisites: HIST 145, HIST 146 or two of the following: 2206.391, 2208.327, 2207.305 or consent of instructor.

**HIST 554 THE IMMIGRANT IN AMERICAN HISTORY (3)** History of the immigrant experience in America from the colonial period to the present. Emphasis on migration patterns, receptivity of native society, assimilation and acculturation processes. Prerequisites: HIST 145 and HIST 146.

**HIST 555 HISTORY OF NATIVE AMERICANS: THE EAST (3)** Topical and regional ethnohistory of the native peoples of Eastern America, and their relations with non-native peoples and governments, precontacts to the present. Prerequisite: Three credits in American history.

**HIST 556 HISTORY OF NATIVE AMERICANS: THE WEST (3)** Topical and regional ethnohistory of the native peoples of Western America and their relations with non-native peoples and governments, precontacts to the present. Prerequisite: 3 credits of American history. Not open to those who have completed Indian-White Relations in American History.

**HIST 557 HISTORY OF AFRO-AMERICANS (3)** History of Americans of African ancestry from their West African background to the present. Emphasis on black Americans' thought, activities, organizations, and their role in developing America. Prerequisites: HIST 145 and HIST 146.

**HIST 558 AMERICAN LABOR (3)** The changing nature of agricultural, domestic, and industrial work; business-labor relations; labor unions and leaders; role of labor in mainstream and radical political movements. Emphasis on the late nineteenth and twentieth centuries. Prerequisite: HIST 146 or three credits in economics.

**HIST 559 HISTORY OF CANADA (3)** Canadian history with emphasis on the period since 1867. Particular attention will be given to the problems of cultural dualism and confederation. Prerequisite: HIST 145 or HIST 146 or HIST 242 or POSC 101.

**HIST 560 HISTORY OF MARYLAND FROM COLONIAL TIMES TO THE PRESENT (3)** Major events and forces that have shaped the political, social, cultural, and economic development of Maryland. Prerequisite: Three credits in United States history.

**HIST 561 HISTORY OF BALTIMORE (3)** The growth of Baltimore from its origins in the eighteenth century through its development as a major metropolitan center. Prerequisites: HIST 145 and 146, or consent of instructor.

**HIST 567 THE EARLY MIDDLE AGES: 300-1050 (3)** The rebuilding of Europe after the collapse of the Roman Empire. Emphasis on the Church Fathers, the Germanic tribes, Carolingian culture, Feudalism and the Vikings. Prerequisite: HIST 241 or HIST 211 or consent of instructor.

**HIST 568 THE HIGH MIDDLE AGES: 1050-1350 (3)** The flowering of medieval culture. Emphasis on the role of the church, the emergence of the national monarchies of western Europe, and the creation of towns and universities. Prerequisite: HIST 241 or HIST 211 or consent of instructor.

**HIST 569 THE RENAISSANCE ERA: 1300-1500 (3)** Political, economic, social, and cultural changes in late medieval and Renaissance Europe. Prerequisite: HIST 241 or HIST 211 or consent of instructor.

**HIST 570 THE REFORMATION: 1500-1648 (3)** Religious, political, economic, and social changes in Reformation and Counter-

Reformation Europe. Prerequisite: HIST 241 or HIST 211 or consent of instructor.

**HIST 571 EUROPE: 1648-1815 (3)** European state system and expansion of European civilization; intellectual growth and class relationships culminating in the French Revolution and Napoleon. Prerequisite: HIST 242.

**HIST 572 EUROPE: 1815-1914 (3)** Major economic, political, social, and intellectual currents of the period. The effects of the industrial revolution, the development of nationalism and imperialism, and the origins of World War I. Prerequisite: HIST 242.

**HIST 573 EUROPE: 1914-1939 (3)** Events leading to World War I, the conflict, and the peace which followed. The rise of conflicting political ideologies and the road to World War II. Prerequisites: HIST 241 and HIST 242.

**HIST 574 EUROPE SINCE 1939 (3)** World War II—diplomacy, strategy, and results. The economic, social, and political recovery of post-war Europe and the development of new alliance structures. Prerequisites: HIST 241 and HIST 242.

**HIST 575 EUROPEAN MILITARY HISTORY: 1871-1945 (3)** The two world wars, pre-war and inter-war military developments, and civil-military relations seen in the context of diplomatic and socio-economic history. Prerequisite: HIST 242 or consent of instructor.

**HIST 576 DIPLOMATIC HISTORY OF EUROPE: 1815-1939 (3)** A study in depth of specific diplomatic crises, with emphasis upon the impact of each upon the European Balance of Power. Prerequisite: HIST 242.

**HIST 577 ECONOMIC HISTORY OF EUROPE TO THE MID-EIGHTEENTH CENTURY (3)** A study of European economy to the middle of the eighteenth century. Particular attention will be given to the development of commerce, capitalism, manufacture, and mercantilism. Prerequisite: HIST 241.

**HIST 578 ECONOMIC HISTORY OF EUROPE SINCE THE MID-EIGHTEENTH CENTURY (3)** The industrialization of Great Britain, France, Germany, Russia, and peripheral nations from the middle of the eighteenth century. Prerequisite: HIST 242.

**HIST 579 EUROPEAN IDEAS: FRENCH REVOLUTION TO THE PRESENT (3)** Religious, scientific, political, and social theories of the European intellectual class seen in their historical context from the French Revolution to the present. Prerequisite: HIST 242 or consent of instructor.

**HIST 580 GREAT BRITAIN IN THE TWENTIETH CENTURY (3)** Political, social, and economic developments in Great Britain from 1897 to the present with emphasis on social reform, the two World Wars, Socialism and the Labour Party, economic decline, the dismantling of the Empire, and entry into the European community. Prerequisite: HIST 201 or HIST 202 or HIST 242.

**HIST 581 FRANCE: 1763-1871 (3)** Old Regime and the impact of successive revolutions upon French society. Emphasis upon the role of France in the growth of European liberalism and nationalism. Prerequisite: HIST 242.

**HIST 582 GERMANY: 1871-1945 (3)** Brief topical analysis of the nineteenth century background. Concentration on the Bismarckian Empire, Weimar Republic, and the Third Reich, emphasizing the interrelationships between internal developments and Germany's role in Europe and the world. Prerequisite: HIST 242.

**HIST 583 HISTORY OF IMPERIAL RUSSIA: 1682-1894 (3)** Political history and theory, social relations, economic, cultural and literary development, and growth of the Russian state from Peter the Great until the advent of Nicholas II. Prerequisite: HIST 242.

**HIST 584 RUSSIA/SOVIET UNION: 1894-1953 (3)** Political, ideological, economic, and cultural factors influencing the fall of the monarchy, the Bolshevik Revolution, Leninism, and Stalinism. Prerequisite: HIST 242 or consent of instructor.

**HIST 585 HISTORY OF SOVIET RUSSIA SINCE STALIN: 1953 TO PRESENT (3)** Topical analysis of political history and theory, economic development, foreign affairs, social changes, and cultural and literary trends. Prerequisite: HIST 242 or ECON 331 or POSC 338 or POSC 339 or POSC 432 or GEOG 453.

**HIST 586 EUROPE IN THE THIRD WORLD: COLONIALISM TO CRISIS (3)** The impact of modern European Colonialism on the societies of the Third World, chiefly Africa and Asia. Primary emphasis on the nineteenth and twentieth centuries. Prerequisite: HIST 242 or consent of instructor.

**HIST 587 A HISTORY OF DIPLOMACY (3)** Evolution from its origins to the present with emphasis on the modern period. Historic changes which shifting ideologies and new technologies have wrought in the role of the diplomat. Prerequisites: HIST 241 and HIST 242.

**HIST 588 HISTORY OF MANAGEMENT (3)** The theory, organization, and operation of selected political, religious, military, economic, and social institutions of the western world. Prerequisite: Three credits in history and either consent of instructor or Junior standing.

**HIST 590 INTERPRETIVE PROBLEMS IN HISTORY (3)** An in-depth study of historical interpretations of selected topics; may be repeated in a different topic for a total of six credits. Prerequisite: Twelve credits in history appropriate to topic.

**HIST 591 BIOGRAPHICAL STUDIES IN HISTORY (3)** A study of selected historical figures who have shaped or reflected the past. Figures to be selected by the instructor; may be repeated in different historical figures for a total of six credits. Prerequisite: Six credits in history appropriate to topic.

**HIST 592 HISTORICAL THEMES (3)** A study through lectures and discussions of a historical topic selected by the instructor; may be repeated in a different topic for a total of six credits. Prerequisite: Six credits in history appropriate to topic.

**HIST 593 DIRECTED INDIVIDUAL RESEARCH (2-4)** Research and reading dealing with a historical topic to be selected by the instructor and student; considerable attention to methodology; may be repeated for a total of six credits. Prerequisites: Fifteen credits in history and a minimum average of 3.0 in history and consent of instructor and Department Chair.

**HIST 594 TRAVEL AND STUDY (3-6)** Countries and topics to be selected by the Departments and instructors sponsoring the program. For complete information, write the Chair of the Department early in the fall of the academic year preceding the semester of intended study; may be repeated in different countries and topics for a total of six credits. Prerequisites: Upper division status and consent of instructor.

**HIST 596 COLLOQUIUM (3)** Group discussion of reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with broad periods, topics, problems or comparative developments selected by the instructor(s); may be repeated in a different topic for a total of six credits. Prerequisites: Consent of instructor and fifteen credits in history or nine credits in history and six credits in the related discipline.

**HIST 597 DIRECTED READING (2-4)** Independent reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific periods, topics, problems or comparative developments selected by the student in consultation with the instructor(s); may be repeated for a total of six credits. Prerequisites: Fifteen credits in history or nine credits in history and six credits in the related discipline and a minimum average of 3.0 in history and the related discipline and consent of Department Chair.

**HIST 783 DIRECTED INDIVIDUAL RESEARCH (2-4)** Research and reading with a historical topic to be selected by the instructor and student. Prerequisites: 18 hours of History and consent of the instructor and department chairperson.

**HIST 797 DIRECTED READING IN HISTORY (2-4)** Reading in areas of history selected by the instructor and the student. Prerequisites: Graduate standing and 18 hours of History and consent of the instructor and department chairperson.

## INSTRUCTIONAL TECHNOLOGY

Chairperson: Linda Burton

Graduate Departmental Coordinator: Gary W. Rosecrans

### INSTRUCTIONAL TECHNOLOGY COURSES (ISTC)

**ISTC 501 UTILIZATION OF INSTRUCTIONAL MEDIA (2-3)** Materials, devices, techniques and settings are presented in an overview of the field of instructional technology. Laboratory experiences are provided in the operation of instructional hardware. Must be taken for two hours credit if student has taken ISTC 269. Prerequisite: Junior standing or above or departmental approval.

**ISTC 523 INSTRUCTIONAL MOTION PICTURE FILM-MAKING I (3)**

This course provides an introduction to the production of motion picture films designed for instructional use. Included in the course are basic film-making techniques, scripting, editing, and a survey of motion filming equipment. Prerequisite: Junior standing or above.

**ISTC 531 INTRODUCTION TO INSTRUCTIONAL TELEVISION (3)**

The course will explore the design and production of non-commercial television programming for training and education. Basic production of student videotapes, script planning and instructional design competencies will be emphasized. Prerequisite: Junior standing or above.

**ISTC 541 COMPUTER TECHNOLOGY AND UTILIZATION (3)**

Exploratory course concerned with the rationale for and use of computers in learning and related administrative matters. Techniques are examined for the organization, storage, processing, and retrieval of data. Applications include the computer for instruction, the management of instruction, simulation, generation of graphics, and accounting for software and hardware. Keypunching, flow charting, and time sharing computer experiences are provided. Field trips to on and off campus computer installations are taken. (Note: The course will not prepare students for occupations in computer science.) Prerequisite: Junior standing or above.

**ISTC 553 INTRODUCTION TO INSTRUCTIONAL PHOTOGRAPHY (3)**

This course presents basic planning and darkroom methods for preparing photographic materials. Although the thrust of the course is the black and white mode, color slides and other special topics are treated. Principles of visual literacy are stressed. Students are required to demonstrate competencies in darkroom utilization and print critiqueing as well as print production. Prerequisite: Consent of Department Chair.

**ISTC 571 REFERENCE AND INFORMATION SOURCES (3)**

The bibliographic method, fundamental reference sources, and searching techniques for print and non-print materials are examined. Students are required to demonstrate competencies in the use of reference sources. Prerequisite: Junior standing or above.

**ISTC 573 CATALOGING AND CLASSIFICATION OF MEDIA (3)**

Cataloging, subject analysis, classification and bibliographic control. The use of commercial processing services and central processing in the school system. The concept of a unified catalog and materials center for print and non-print materials is stressed. Prerequisite: Junior standing or above.

**ISTC 601 ORGANIZATION AND ADMINISTRATION OF MEDIA CENTER PROGRAMS (3)**

Organizational patterns, management procedures, and supervisory methods and techniques for instructional materials centers. Topics include: facilities, finance, selection, procurement, security and basic maintenance of equipment and materials; center operation, extension and in-service programs, assessments of systems and programs, and public relations. Prerequisite: Six upper division credits of ISTC courses.

**ISTC 615 MEDIA SELECTION (3)** Criteria used to select media, classroom management techniques in using media, and various evaluation instruments. Prerequisite: Six upper division credits of ISTC courses.

**ISTC 633 INSTRUCTIONAL TELEVISION (3)** The ITV movement; ITV systems and terminology; elements of production; classroom utilization of the ITV product; developing the ITV workshop; careers in ITV; and aspects of administration, philosophy, evaluation, and research in ITV. Prerequisite: Six upper division credits of ISTC courses.

**ISTC 634 INDEPENDENT STUDY: INSTRUCTIONAL MOTION PICTURE FILMMAKING II (3)** Scriptwriting techniques, directional techniques, including areas such as: background, audio, lighting, and optics applications. Special effects techniques, such as animation, slow and stop motion. Prerequisites: ISTC 423, and consent of chairperson.

**ISTC 655 MEDIA DESIGN AND PRODUCTION I (3)** The design and production of a teacher-made instructional materials and the production of materials. Prerequisite: Bachelor's degree.

**ISTC 656 MEDIA DESIGN AND PRODUCTION II (3)** Production techniques and planning of instructional materials. Research and theory relevant to perception and communication are explored. Prerequisites: ISTC 655 and consent of chairperson.

**ISTC 663 APPLIED PSYCHOLOGY OF LEARNING (3)** Behaviorist and Gestalt learning theories and the principles of Gagne and Piaget. Prerequisites: ISTC 301 and one other instructional technology course.

**ISTC 667 INSTRUCTIONAL DEVELOPMENT (3)** Includes an overview of the systems approach and its use in problem solving. The application of the systems approach with instructional technology to the problems of instruction is studied in detail. Students are required to demonstrate competencies in designing mediated instructional sequences and in evaluating media with behavioral descriptors. Prerequisites: ISTC 663 and written permission.

**ISTC 671 ADVANCED REFERENCE (3)** Bibliographic and research for the retrieval of information using manual and automated information delivery system techniques. Prerequisites: ISTC 471 or equivalent.

**ISTC 673 INSTRUCTIONAL FACILITIES DESIGN (3)** A systems approach to the integration of media and facilities into a unit to fulfill instructional training goals. Time and sequential phasing relationships and interaction of human, technical, and environmental resources. The application of equipment and facilities designed for individually prescribed and for large group or multi-media instruction. Prerequisites: Six upper division hours of instructional technology at the 500 level or above, and consent of chairperson.

**ISTC 674-679 SPECIAL TOPICS IN INSTRUCTIONAL TECHNOLOGIES (3-6)** Topics selected from the instructional technology field which are innovative and of immediate concern to existing instructional needs. May be repeated to a maximum of six credit hours with no topic repeated. Prerequisite: Bachelor's degree.

**ISTC 685 INTRODUCTION TO RESEARCH IN INSTRUCTIONAL TECHNOLOGY (3)** Elements of research writing, basic concepts of inferential statistics and research in the field of instructional technology. Prerequisites: Six credits of ISTC courses at the 600 — 700 level and consent of chairperson.

**ISTC 687 COMPUTER ASSISTED INSTRUCTION (3)** The relationship between programmed instruction and computer-assisted instruction is examined. Students are required to demonstrate competencies in the design and production of computer-assisted instruction. Prerequisites: ISTC 441 or equivalent and departmental consent.

**ISTC 691 DIRECTED READINGS IN INSTRUCTIONAL TECHNOLOGY (3)** Independent readings and research in selected areas of instructional technology. Prerequisite: Consent of chairperson.

**ISTC 695 INDEPENDENT STUDY IN INSTRUCTIONAL TECHNOLOGY (3)** Individual and supervised study of research problems and special projects in specific areas of Instructional technology. Prerequisite: Consent of chairperson or instructor.

**ISTC 789 GRADUATE PRACTICUM IN INSTRUCTIONAL TECHNOLOGY (3-6)** Work in a school media center under professional supervision, satisfies practicum requirements for certification as a media specialist or media generalist. Prerequisites: ISTC 471; ISTC 473; ISTC 601 and 15 additional credits in Instructional Technology and consent of chairperson.

**ISTC 797 GRADUATE INTERNSHIP IN INSTRUCTIONAL TECHNOLOGY (3)** Project under the direction of a faculty advisor and a formal paper. The course may be taken twice for credit. Prerequisites: ISTC 795 and consent of chairperson.

**ISTC 898 MASTER'S THESIS (3-6)** An original investigation, using research method and design, of a research problem. Credit granted after thesis accepted. Prerequisite: Consent of chairperson.

**ISTC 899 THESIS CONTINUUM (1)**

## MANAGEMENT

Chairperson: Manoj Tom Basbury

**MANAGEMENT COURSES (Management MNGT and Human Resource Management HRM)**

**MANAGEMENT COURSES (MNGT)**

**MNGT 511 MANAGEMENT THEORY (3)** Nature, development and future prospects of management and organization theory. Management functions and processes in terms of organization, directing, communication, goals and responsibilities.

**MNGT 513 QUANTITATIVE METHODS FOR BUSINESS I (3)** Processes, tools, and techniques for quantitative analysis for management; basic theory for solving deterministic and probabilistic models with emphasis on applications to business; linear programming, transportation, assignment, simple network models, and statistical decision making. Prerequisites: MATH 111 and MATH 231.

**MNGT 555 SMALL BUSINESS DEVELOPMENT (3)** Promotional and entrepreneurial functions in starting a business through research, evaluation, design, planning and organization of a small business. Marketing, production, finance, and managerial activities are involved. Prerequisite: 9 hours upper level BUAD courses or consent of the instructor.

**MNGT 563 SEMINAR IN LEADERSHIP (3)** Leadership styles and strategies by relating the appropriate marketing, financial, and production information available to management. Prerequisite: nine hours upper level BUAD courses.

**MNGT 581 ADVANCED BUSINESS POLICY WORKSHOP (3)** A course requiring practical application of principles of management in an organizational framework. Class will integrate functional skills in the areas of finance, marketing, personnel, and management. Prerequisite: senior standing or consent of instructor.

**MNGT 601 ADMINISTRATIVE THEORY AND PRACTICE (3)** Development of a framework for understanding and managing for organizational effectiveness, including the traditional areas of planning, organizing, staffing, directing and controlling. Other topics will include organizational behavior theory, alternate methods for decision-making and current management issues. This course is designed for students with no undergraduate exposure to management coursework. Prerequisite: Graduate standing.

**MNGT 670-679 SPECIAL TOPICS IN MANAGEMENT (3)** Contemporary business issues as they affect management practice. Content varies with each topic. Prerequisite: Consent of instructor.

**MNGT 695 INDEPENDENT STUDY IN MANAGEMENT (3)** Comprehensive paper on specific topic in finance, management, personnel, marketing, or accounting. Prerequisites: 9 graduate semester hours in Business and consent of instructor.

## HUMAN RESOURCE MANAGEMENT COURSES (HRM)

**HRM 551 INDUSTRIAL RELATIONS (3)** Contract negotiation and collective bargaining. Labor disputes, internal problems in unions, management problems, and legal constraints. Prerequisites: HRM 381 and ECON 341.

**HRM 552 GRIEVANCES AND ARBITRATION (3)** Case study analysis of the grievance and arbitration procedure or a means of conflict resolution in existing industrial relations systems. Discharge, discipline, working conditions, past practice, promotion, overtime, and other specific arbitrable issues. Prerequisite: HRM 381.

**HRM 557 PUBLIC SECTOR COLLECTIVE BARGAINING (3)** Collective bargaining at different levels of education and other public agencies. Examination of trends, analysis of problems and an understanding of the strategies of the parties. Prerequisites: HRM 381, HRM 451 or consent of instructor.

**HRM 580 HUMAN RESOURCE ADMINISTRATION (3)** Techniques and problems in obtaining and developing a competent work force. Recruiting, selecting, testing, and evaluating employees. Wage and salary administration. Prerequisite: junior/major standing or consent of instructor.

## MARKETING

Chairperson: Edward Shafer

**MARKETING COURSES (Marketing MKTG and International Business INBU)**

**MARKETING COURSES (MKTG)**

**MKTG 540 PRINCIPLES OF MARKETING (3)** Marketing problems of business firms. Influence of the marketplace, the industry structure, and the role of government. Prerequisite: junior/major standing or consent of instructor.

**MKTG 541 MARKETING RESEARCH AND FORECASTING (3)** Marketing research as a tool facilitating the corporate decision-making process from sales research, market analysis through motivational analysis, advertising policy and product and package design. Research design, sampling theory, data collection, interview techniques and statistical analysis. Prerequisites: MKTG 431 and MATH 231.

**MKTG 542 SEMINAR IN MARKETING (3)** Development of decision-making skills and the formulation of strategies and policy. Market segmentation, consumer behavior, pricing, product line strategy, and promotion. Prerequisites: MKTG 341; MATH 231 or ECON 301.

**MKTG 603 MARKETING ADMINISTRATION (3)** The fundamental aspects of marketing functions, theory and strategy, including analysis of marketing opportunities; marketing research and forecasting; market segmentation; consumer motivation; product planning, price and distribution; sales force management and the role of marketing within the firm and society. Prerequisite: Graduate standing.

## INTERNATIONAL BUSINESS COURSES (INBU)

**INBU 521 INTERNATIONAL TRANSPORTATION (3)** Developments, operations, and economic regulations of air and ocean transportation between the United States and foreign nations.

Movement of goods and passengers between countries. Prerequisite: MKTG 371.

**INBU 545 INTERNATIONAL MARKETING (3)** Environment of international marketing including channels of distribution, advertising, and legal, economic and cultural factors. Problems and obstacles related to market surveys and development of policies. Regional studies. Prerequisites: MKTG 341, INBU 355.

**INBU 670-679 SPECIAL TOPICS IN INTERNATIONAL BUSINESS (3)**

**INBU 695 INDEPENDENT STUDY IN INTERNATIONAL BUSINESS (3)**

## SPEECH AND MASS COMMUNICATION

Chairperson: Ronald Matman

Graduate Departmental Coordinator, Mass Communication Program:

Peter Lev

### MASS COMMUNICATION COURSES (MCOM)

**MCOM 515 BUSINESS AND PROFESSIONAL COMMUNICATION (3)** The examination of curriculum vitae preparation, dyadic encounters (particularly the interview) and the exploration of communication in various business structures. Agendas, briefings, meetings, conferences, and strategies of attributional and communicative techniques employed in professional settings. Prerequisite: SPCH 131 or equivalent.

**MCOM 521 FINANCIAL COMMUNICATIONS (3)** Develops understanding of business financial fundamentals and techniques for communicating with the financial community including news announcements, annual and quarterly reports, and legal requirements. Prerequisite: One course in Business Administration or Journalism, or consent of instructor.

**MCOM 543 HISTORY OF FILM (3)** Exploration of the social, artistic, economic, and technical factors in the development of the motion picture from 1900 to the present. Prerequisite: MCOM 202.

**MCOM 544 AESTHETICS OF THE FILM (3)** Survey of film theory and aesthetics of silent, sound and avant-garde motion pictures. Prerequisite: MCOM 363 or consent of instructor.

**MCOM 550 PUBLIC OPINION AND THE PRESS (3)** Journalistic aspects of public opinion and propaganda; the impact of mass communication media on the formation of public opinion. Techniques of polling and testing public opinion.

**MCOM 551 PUBLIC RELATIONS FOR NON-PROFIT ORGANIZATIONS (3)** A study of public relations in the non-profit organization. Fundraising, lobbying, working with volunteers, media relations, and the overall PR program will be studied. Course combines theory and practice. Contacts made with community non-profit organizations are the basis for practical experience lab sessions. Prerequisite: MCOM 353.

**MCOM 552 PUBLICITY AND PUBLIC RELATIONS (3)** Provides an awareness and understanding of public relations activities. Students learn publicity techniques and how to organize campaigns.

**MCOM 553 ADVANCED PUBLICITY AND PUBLIC RELATIONS (3)** Case studies and typical public relations problems in industry, labor, education, government, social welfare, and trade associations. Planning and preparation of communications materials for various media; application of public relations techniques. Prerequisites: MCOM 353 and/or MCOM 497.

**MCOM 556 FEATURE WRITING (3)** Preparation of long and short articles, editorials and news features. Prerequisites: MCOM 355, one English Composition course, and efficient typing skill. Fulfils advanced writing requirement.

**MCOM 558 NEWS EDITING AND COPYREADING (3)** Practice in editing, headline writing, page make-up and use of pictures and type in newspapers, and editing copy for use on radio and television. Prerequisite: MCOM 355 or MCOM 356.

**MCOM 560-569 PRACTICUM IN MASS COMMUNICATION (1-6)** Provides students with valuable practical field experiences. Under faculty supervision the student works in an actual job setting with a working professional in a particular area of mass communications. Prerequisite: Completion of appropriate courses as determined by the department.

**MCOM 575 FILM WORKSHOP (3)** Designed primarily to provide experienced or future teachers with background about film so that they may better help pupils to become informed about and to develop critical reactions to the films they view. Prerequisite: Consent of instructor.

**MCOM 591 INDEPENDENT STUDY IN FILM (1-6)** Independent work in film production and research. Production students may work independently, with campus production unit or with professional production company. May be repeated for a maximum of 6 credits. No more than 6 credits of Independent Study and/or Practicum can be applied to the major and minor. Prerequisites: MCOM 202, MCOM 267 or consent of instructor.

**MCOM 593 INDEPENDENT STUDY IN RADIO (1-6)** Independent study in selected areas of radio through directed readings, projects in conjunction with the operation of the student radio station or work with a full-time professional in the community. Selected students may work as laboratory assistants in the MCOM 265 Radio Production I class. May be repeated for a maximum of 6 credits. No more than 6 credits of Independent Study and/or Practicum can be applied to the major and minor. Prerequisites: MCOM 201, MCOM 265 and consent of instructor.

**MCOM 595 INDEPENDENT STUDY IN TELEVISION (1-6)** Independent study in selected areas of television production and research through selected readings, projects, papers and seminars. May be repeated for a maximum of six credits. Prerequisites: MCOM 371 and consent of instructor.

**MCOM 596 INDEPENDENT STUDY IN JOURNALISM (1-6)** Independent study in the varied aspects of newspaper writing. Opportunity will be provided to work under the guidance of professional newspaperpersons connected with the Baltimore papers. May be repeated for a maximum of 6 credits. No more than 6 credits of Independent Study and/or Practicum can be applied to the major and minor. Prerequisite: Open by invitation of the department to qualified students.

**MCOM 597 INDEPENDENT STUDY IN PUBLIC RELATIONS (1-6)** Independent study in selected areas of public relations through directed readings, projects, papers or seminars. When possible opportunity will be provided for the student to work outside the classroom, under the cooperative guidance of his/her instructor and a full-time professional public relations person in the field of the student's choice. May be repeated for a maximum of 6 credits. No more than 6 credits of Independent Study and/or Practicum can be applied to the major and minor. Prerequisites: MCOM 353 and consent of instructor.

**MCOM 601 MEDIA WRITING (3)** Study of and practice in media writing techniques. Emphasis on style, structure, content and purpose. Prerequisite: Undergraduate degree in mass communication or MCOM 355 or MCOM 356 or MCOM 373 or equivalent.

**MCOM 603 CRITICISM IN MASS MEDIA (3)** Examination and criticism of film and television with the focus upon aesthetic, commercial and production values that affect these media. Prerequisite: MCOM 201 or MCOM 202 or MCOM 363 or MCOM 364 or equivalent.

**MCOM 615 ADMINISTRATIVE & PROFESSIONAL COMMUNICOLOGY (3)** Communication practices and problems within business and corporations. Emphasis on relationship between

management-employee effectiveness, conflict management and resolution, and business communication formats. Prerequisite: MCOM 315 or equivalent.

**MCOM 617 INTERNATIONAL COMMUNICATON (3)** Media systems of the world compared relative to their political, cultural, sociological, economic, religious, historical and broadcasting and print structures. In-depth analysis of American global media efforts. Prerequisites: MCOM 201 and MCOM 355; or instructor's consent.

**MCOM 621 MASS MEDIA LAW & REGULATIONS (3)** Legal limits on freedom of the press, Constitutional guarantees, libel, contempt, obscenity, privacy, ethical problems, the right to know. Origins and concepts of freedom of information and its evolution in constitutional law and judicial decisions; contemporary problems of censorship in publishing, broadcasting, and film.

**MCOM 651 MEDIA AND POLITICS (3)** Relationships between the mass media and the political system. The influence of the media on political careers, the adversary and support roles of the media. Prerequisite: Undergraduate degree.

**MCOM 670-679 SPECIAL TOPICS IN MASS COMMUNICATION (3)** Exploration of current media topics. Prerequisite: Varies with each topic.

**MCOM 680 SEMINAR IN MEDIA MANAGEMENT: BROADCAST STATION MANAGEMENT AND OPERATIONS (3)** Functions, advertising, network and labor relations, internal organizational structure and operational procedures of broadcast management. Philosophies and theories of management, programming, audience research, budgeting and accounting principles, sales and regulatory functions. Prerequisites: MCOM 201, MCOM 261 or MCOM 265 or equivalent.

**MCOM 685 SEMINAR IN MEDIA PRODUCTION: PUBLIC RELATIONS (3)** Theories, practices and management of public relations with case study projects. Prerequisite: MCOM 353 or equivalent.

**MCOM 686 SEMINAR IN MEDIA PRODUCTION: TELEVISION (3)** Aesthetic and technical aspects of multi-camera television studio production: camera operation and techniques, lighting and audio, technical direction and producing. Prerequisite: MCOM 271.

**MCOM 687 SEMINAR IN MEDIA PRODUCTION: NEWSPAPERS (3)** Newspaper production and its relationship to other aspects of its operation. Traditional and new newspaper technology. Prerequisite: MCOM 601.

**MCOM 688 SEMINAR IN MEDIA PRODUCTION: FILM (3)** The examination of advanced 16mm filmmaking practice in both pre-production and post-production leading to the completion of a professional quality 16mm release print. Individual cost to the student will be determined by the selected student project. Prerequisites: MCOM 202, MCOM 267 and MCOM 367 or equivalent.

**MCOM 695 DIRECTED READINGS IN MASS COMMUNICATION (3)** Directed readings in selected areas of mass communication. Prerequisites: graduate standing and consent of graduate coordinator.

**MCOM 701 MEDIA INTER-RELATIONSHIPS (3)** Examination of the interactions among the mass media, including message-media systems. Prerequisite: MCOM 601.

**MCOM 711 THEORIES IN MASS COMMUNICATION (3)** Theories relating to the communicator, message, channel, audience, and effects components of mass communication. Prerequisite: PSYC 111 or MATH 231 or equivalents.

**MCOM 721 RESEARCH METHODS IN MASS COMMUNICATION (3)** Study of the research tools and sources in communication. Prerequisite: PSYC 111 or MATH 231 or equivalents.

**MCOM 781 INTERNSHIP IN JOURNALISM (3)** Supervised work in a professional journalistic setting. Prerequisites: MCOM 501, three additional MCOM graduate credits and consent of instructor.

**MCOM 783 INTERNSHIP IN PUBLIC RELATIONS (3)** Supervised work in a professional public relations setting. Opportunity to relate theory and practice. Prerequisites: MCOM 353, MCOM 601 and three MCOM graduate credits. Consent of instructor required.

**MCOM 785 INTERNSHIP IN FILM (3)** Supervised work experience within a professional filmmaking environment, exposing student to film production and scheduling. Prerequisites: MCOM 367 or equivalent, nine graduate credits in MCOM, and permission of the instructor.

**MCOM 787 INTERNSHIP IN TELEVISION (3)** Supervised work in professional telecommunication settings. Prerequisites: 6 MCOM graduate credits, and consent of instructor.

**MCOM 789 INTERNSHIP IN RADIO (3)** Supervised work in a professional radio setting. Prerequisites: 6 MCOM graduate credits, and consent of instructor.

**MCOM 795 INDEPENDENT STUDY IN MASS COMMUNICATION (3)** Independent study in selected areas of Mass Communication. Prerequisite: 15 credits of graduate level mass communication courses.

**MCOM 897 GRADUATE PROJECT IN MASS COMMUNICATION (3)** Individual preparation and presentation of a project which is oriented toward the application of theories and techniques in mass communication. Prerequisite: Completion of all core courses, advancement to candidacy and consent of graduate coordinator.

**MCOM 898 THESIS (3 or 6)** A carefully executed and accurate recording of a specific topic in mass communication. An acceptable research methodology must be utilized. Includes an outline of the proposed thesis submitted for approval to graduate advisor. Prerequisites: The student must be advanced to degree candidacy and have completed all of the required core courses.

**MCOM 899 THESIS CONTINUUM (1)**

## MATHEMATICS

Chairperson: Martin Horak

### MATHEMATICS COURSES (MATH)

**MATH 521 APPLICATIONS OF MATHEMATICS FOR SECONDARY SCHOOL TEACHERS (3)** The course examines a series of applications of mathematics that may be used to enrich the secondary mathematics curriculum. (No credit towards a mathematics major.) Prerequisite: Teaching experience in mathematics or science or consent of instructor.

**MATH 524 TEACHING THE METRIC SYSTEM (1)** Methods and materials for the teaching of the metric system in the elementary and junior high schools. Prerequisite: MATH 205 or equivalent, or previous teaching experience.

**MATH 525 METHODS AND MATERIALS FOR MATH LAB INSTRUCTION (1-3)** Examination of and experiences with commercial and teacher-made materials designed for a laboratory (activity centered) approach to learning mathematics. Prerequisite: A methods course in teaching mathematics (MATH 321, 323, 423) or previous teaching experience.

**MATH 527 READINGS IN MATHEMATICS EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER (1-3)** Directed study for the teacher of elementary school mathematics. Prerequisites: MATH 321 or MATH 323 and approval of instructor. (No credit toward a mathematics major.)

**MATH 529 READINGS IN MATHEMATICS EDUCATION FOR THE SECONDARY SCHOOL TEACHER (1-3)** Directed study for the teacher of secondary school mathematics. Prerequisite: Consent of instructor. (No credit toward a mathematics major for arts and science students.)

**MATH 531 PROBABILITY (3)** Probability in sample spaces, discrete and continuous random variables, distribution theory, Chebyshev's theorem, central limit theorem, expected values and moments. Prerequisite: MATH 274.

**MATH 532 MATHEMATICAL STATISTICS (3)** Sample theory and distributions, point estimation, confidence intervals, tests of hypothesis, regression, correlation and analysis of variance. Prerequisite: MATH 331. (Offered only in the spring semester of the academic year.)

**MATH 535 NUMERICAL ANALYSIS I (3)** Error analysis, interpolation, numerical differentiation and integration, numerical solution of algebraic equations and of systems of algebraic equations. Prerequisites: COSC 236 (or COSC 306) and MATH 274 and MATH 365 (or MATH 264).

**MATH 536 NUMERICAL ANALYSIS II (3)** Numerical solution of differential equations. Least squares and its applications, linear programming and extension of the concepts of MATH 435. Prerequisite: MATH 435. (Offered only in the spring semester of the academic year.)

**MATH 537 OPERATIONS RESEARCH (4)** Introduction to linear and integer programming; the simplex method and duality theory; dynamical formulation of deterministic decision process problems, applications to problems of equipment replacement, resource allocation and scheduling; Poisson and birth and death processes. Markovian queues. Prerequisites: MATH 331 and MATH 365.

**MATH 551 MATH RESEARCH IN GRAPH THEORY (3)** A course designed to give an advanced mathematics major the opportunity to do independent, significant research in a field of mathematics through graph theory. Topics may include Hamiltonian and Eulerian graphs, coloring graphs, planar and non-planar graphs, connectivity problems and isomorphic graphs. Prerequisite: Consent of instructor.

**MATH 557 DIFFERENTIAL GEOMETRY (3)** Curvatures of curves and surfaces in  $E^3$ , geodesics, invariants, mappings and special surfaces. Prerequisite: MATH 373.

**MATH 560 ALGEBRAIC STRUCTURES (4)** Groups, rings, fields, integral domains, and polynomial rings. Prerequisite: MATH 261 or MATH 263.

**MATH 561 ADVANCED TOPICS IN ALGEBRA (3)** Extension of the concepts of MATH 361. Prerequisites: MATH 361 and MATH 365. (Offered only in the fall semester of the academic year.)

**MATH 565 LINEAR ALGEBRA (3)** Matrices, vector spaces, determinants, systems of linear equations, linear transformations, characteristic vectors and values, canonical forms. Prerequisite: MATH 261 or MATH 263.

**MATH 567 THEORY OF NUMBERS (3)** Theory of prime numbers, the division algorithm, the fundamental theorem of arithmetic, polynomials, congruences, number theoretic functions. Prerequisite: MATH 261 or MATH 263.

**MATH 573 CALCULUS III (4)** Differential and integral calculus of functions of several variables; differential and integral calculus of vector valued functions, including the divergence and Stoke's theorems. Prerequisite: MATH 274.

**MATH 574 DIFFERENTIAL EQUATIONS (3)** Theory and application of linear ordinary differential equations. Solutions of non-linear ordinary differential equations of the first order. Prerequisite: MATH 274.

**MATH 575 MATHEMATICAL MODELS (3)** Consideration of some mathematical problems in sociology, psychology, economics, management science and ecology, and developing appropriate mathematical models and techniques to solve them.

**MATH 576 INTRODUCTORY REAL ANALYSIS (4)** An introduction to mathematical analysis. Sequences, series, continuity, differentiation,

integration and uniform convergence. Prerequisites: MATH 361 or MATH 365 and MATH 274.

**MATH 577 COMPLEX ANALYSIS (3)** Complex number system, analytic functions, Cauchy's integral theorem and integral formula, Taylor and Laurent series, isolated singularities, Cauchy's residue theorem and conformal mappings. Prerequisite: MATH 373. (Offered only in the fall semester of the academic year.)

**MATH 578 TOPOLOGY (3)** Basic concepts of pointset topology, separation axioms, compact and connected spaces, product and quotient spaces, convergence, continuity and homeomorphisms. Prerequisites: MATH 361 or MATH 365 and MATH 373. (Offered only in the spring semester of the academic year.)

**MATH 580-589 SELECTED TOPICS IN MATHEMATICS AND STATISTICS (1-4)** Topics will be chosen from different areas in mathematics and statistics. Content will be determined so as to complement course offerings as well as the needs and desires of the students. MATH 480 through MATH 483 may not be counted towards a mathematics major. Students may not accumulate more than 9 credit hours in Selected Topics. Prerequisites will vary from topic to topic.

**MATH 591 READINGS IN MATHEMATICS (1-3)** Independent reading in selected areas of mathematics. Prerequisite: Consent of instructor. May be repeated for a maximum of 6 credits. (Open only to seniors.)

**MATH 601 HISTORY OF MATHEMATICS (3)** A historical survey of the classical roots of contemporary mathematics with selected topics chosen from number theory, geometry, analysis and algebra. Prerequisites: MATH 274, MATH 353 or MATH 357 and MATH 361.

**MATH 621 SEMINAR IN TEACHING ARITHMETIC (3)** Analysis of new topics, techniques, and materials in arithmetic instruction. Students may not receive credit for both MATH 521 and MATH 422, except by special permission from the graduate program coordinator and the chairperson of the mathematics department. Prerequisite: MATH 321 or MATH 323.

**MATH 625 SEMINAR IN MATHEMATICS EDUCATION FOR SECONDARY SCHOOL TEACHERS (3)** An investigation of recent curricula, methods, and materials for secondary school mathematics instructors. Prerequisite: MATH 423 or equivalent.

**MATH 630 STATISTICS—AN INTEGRATED APPROACH (4)** Theory and practices of basic statistical analysis and inference with emphasis on analyzing and solving real problems using statistics. Descriptive statistics, introduction to probability, sampling distributions, estimation, hypotheses testing, regression, correlation, non-parametric techniques and analysis of variance, computer programming incorporated throughout. Prior knowledge of programming is not necessary. (Not open to those who have taken MATH 332.) Prerequisite: MATH 274.

**MATH 631 TOPICS IN PROBABILITY (3)** Review of basic probability theory, types of convergence and limit theorems, elementary stochastic processes. Markov chains, birth and death processes. Gaussian processes. Examples from engineering, physical and social sciences, management and statistics. Prerequisite: MATH 331.

**MATH 653 TOPICS IN GEOMETRY (3)** Axiomatic development of Euclidean, elliptic and hyperbolic geometries; the study of the analytic plane, the sphere and the Poincare model as models for these axiomatic systems. Not open to students who have had MATH 353. Prerequisites: MATH 274 and MATH 361.

**MATH 661 ELEMENTS OF GALOIS THEORY (3)** Review of elementary group theory, polynomial rings, algebraic field extensions. Galois theory, polynomial rings, algebraic field extensions. Galois theory for fields of characteristic zero, solution of polynomial equations by radicals, and other applications of the Galois theory. Prerequisite: MATH 361.

**MATH 691 SEMINAR IN MATHEMATICAL APPLICATIONS (3)** Survey with topics to be chosen from: linear programming theory

of games, mathematical biology, econometrics, mathematical ecology, Fourier analysis, integral equations, partial differential equations, diffusion, stochastic processes, production theory, statistical mechanics, fluid dynamics. Prerequisite: MATH 373.

**MATH 695 INDEPENDENT STUDY IN MATHEMATICS (1-3)**

Directed independent study in selected areas of graduate level mathematics. Prerequisites: Permission of instructor and graduate advisor.

## MUSIC

Chairperson: David Marchand

Graduate Departmental Coordinator, Music Education

Program: Clifford D. Alper

### MUSIC COURSES

#### MUSIC (MUSC)

**MUSC 501 MUSIC PRIOR TO 1600 (3)** The art of music in the West from its tentative beginnings in Greek and Hebrew to the year 1600 A.D. Prerequisite: MUSC 301 or consent of instructor.

**MUSC 502 MUSIC OF THE BAROQUE PERIOD (3)** Study of the development of music style, forms and compositional techniques during the period from 1600 to about 1750. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 503 MUSIC OF THE CLASSICAL PERIOD (3)** Styles, forms and techniques of the period from 1750-1820. Particular emphasis is placed on instrumental categories of the string quartet, sonata, symphony and concerto as illustrated in the works of Haydn, Mozart and Beethoven. Attention is given to operatic and sacred compositions of the same masters. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 504 MUSIC OF THE ROMANTIC PERIOD (3)** Musical styles, forms and techniques in the 19th century with special attention to the intellectual foundations of the Romantic movement. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 505 CONTEMPORARY MUSIC (3)** Styles, forms and musical techniques since 1900. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 506 SURVEY OF SOLO VOICE LITERATURE (3)** A musical survey of the art-song form circa 1750 to the present. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 507 TONAL COUNTERPOINT (3)** A study of the polyphonic practices employed in 18th century tonal counterpoint. Prerequisite: MUSC 232.

**MUSC 508 MODAL COUNTERPOINT (3)** Analysis and writing of counterpoint in the style of Sixteenth Century masters such as Palestrina and Lassus. The approach of traditional species practice will be employed. Prerequisite: MUSC 232 or equivalent.

**MUSC 509 HISTORY AND LITERATURE OF GUITAR, LUTE, AND VIHUELA (3)** A survey of the history and literature written for or readily adaptable to the guitar. Includes study of tablatures and transcriptions to modern notation. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 510 SURVEY OF ORGAN LITERATURE (3)** A study of the literature of the organ from the beginnings of the Baroque Period to the present. Music covered will include that of the early Italian, French, and English schools; French Classical and North German Baroque; J. S. Bach and his followers; French & German organ music of the 19th Century and a survey of organ music of the 20th Century. Prerequisites: MUSC 102; MUSC 232 or consent of instructor.

**MUSC 511 SURVEY OF OPERA (3)** Study of opera literature of various periods and styles. Prerequisite: Junior or Senior standing or consent of instructor.

**MUSC 512 WIND ENSEMBLE (1)** Study and performance of advanced wind literature by a small band of selected instrumentalists. Audition Required. Prerequisites: Audition and consent of instructor.

**MUSC 513 SYMPHONIC LITERATURE (3)** Survey of orchestral music from the Classical Era to the present. Includes symphony, overture, and symphonic poem. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 515 THE CONCERTO (3)** A survey of the concerto form from its inception to the present. Analysis of stylistic, formal, and compositional aspects will be included. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 517 PIANO LITERATURE (3)** A survey of piano literature from 1600 to the present. Primarily a lecture/demonstration course, but with assigned reading and assigned listening. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 520 WORKSHOP IN MUSIC INSTRUMENT REPAIR (1)** The course offered during the period of the summer music camp will focus upon practical problems and methodology of instrument repair and maintenance. Items/activities of the course will include, but not be limited to: 1) identifying repair problems, 2) equipment necessary for repair, and 3) repair methodology. The course will also provide information concerning maintenance and avoidance of repairs. Prerequisite: Six semesters of applied music or equivalent.

**MUSC 521 AMERICAN MUSIC (3)** American music from the Colonial Period to the present. Prerequisite: Junior standing or consent of instructor.

**MUSC 527-528 JAZZ ARRANGING I, II (3, 3)** Study and practice of arranging of standard material for Jazz Ensembles. Prerequisite: MUSC 232 or consent of instructor.

**MUSC 529-530 JAZZ IMPROVISATION I, II (3, 3)** Study and practice of improvising in various jazz styles. Prerequisite: MUSC 231-232 or consent of instructor.

**MUSC 531 ADVANCED CHORAL AND INSTRUMENTAL ARRANGING (3)** Advanced arranging techniques including the scoring of original and other works for various combinations of instruments and/or voices. Prerequisite: MUSC 335, or equivalent, or consent of instructor.

**MUSC 532 SEMINAR IN ADVANCED INSTRUMENTAL CONDUCTING AND INTERPRETATION (1)** Provides opportunity to study and discuss music literature and performance problems with nationally known conductors during the music camp. Music selected to be performed by the camp participants will be examined and evaluated in terms of conducting techniques and interpretation. As a part of this process, students will be required to observe and evaluate camp performances. Prerequisite: MUSC 329 or equivalent and/or consent of instructor.

**MUSC 535 FORM AND ANALYSIS (3)** Analysis of vocal and instrumental literature. Prerequisite: MUSC 232. (UG & G)

**MUSC 549-550 STRING ENSEMBLE (1, 1)** Study and performance of advanced string literature, required of all students majoring in string instruments. Admission by permission of director. May be repeated with credit.

**MUSC 559-560 TOWSON STATE UNIVERSITY CHORAL SOCIETY (1, 1)** Study and performance of advanced choral literature. May be repeated with credit.

**MUSC 567-568 ORCHESTRA (1, 1)** Study of orchestral literature. Open to all students by audition. May be repeated with credit.

**MUSC 569-570 SYMPHONY BAND (1, 1)** Study and performance of advanced wind and percussion literature by a large band of selected instrumentalists. Personnel to be determined by balanced instrumentation. Prerequisite: Audition and permission of instructor.

**MUSC 571-579 SPECIAL TOPICS IN MUSIC LITERATURE (3)** Consideration of a central topic of Music Literature with a different

topic selected each semester. May be reelected. Prerequisite: MUSC 232 and consent of instructor.

#### **MUSC 593 INDEPENDENT RESEARCH IN MUSIC LITERATURE**

**(3)** Supervised research and musicological investigation of a selected topic culminating in a written senior thesis. May be repeated with credit. Prerequisites: MUSC 301, MUSC 302, and six hours of Advanced Music Hist. courses.

#### **MUSC 601 ADVANCED OPERA WORKSHOP (1)**

Advanced techniques of stage movement and related aspects of opera production. Optional programs will be designed specifically for singers, conductors, stage directors and accompanist/coaches. Prerequisite: Opera Workshop experience or equivalent proficiency level. Audition required.

#### **MUSC 618 WORKSHOP IN CLASS PIANO PEDAGOGY (2)**

Designed as a one-week summer workshop, this course will offer practical training to class piano teachers. Emphasis will be placed on organization of course content, application of effective group piano teaching methods, and the selection of teaching materials. Class activities will include the development of instructional techniques in the Wurlitzer piano laboratory. Prerequisite: One year of private or class keyboard study or consent of instructor.

#### **MUSC 631 ADVANCED THEORY (3)**

Continued development of skills in more advanced melodic, harmonic and rhythmic aspects of music through hearing, playing and writing. Prerequisite: MUSC 232.

#### **MUSC 633 ADVANCED WOODWINDS (DOUBLE REEDS) (3)**

Study of advanced techniques on bassoon and oboe. Special emphasis given to reed-making and instrument repair. Prerequisite: MUSC 233 or consent of instructor.

#### **MUSC 639 MUSIC COMPOSITION (3)**

Analysis and discussion of works of major composers. Writing of original compositions in vocal and instrumental idioms. Prerequisites: MUSC 232, MUSC 335, MUSC 435.

#### **MUSC 661 SEMINAR IN INSTRUMENTAL MUSIC (3)**

Comparative analysis of current methods and materials used in schools and colleges. Instrumental conducting and repertoire. Construction of acoustical properties and basic techniques of instruments. Problems of ensemble and balance. Intonation, precision and interpretation are studied. Materials and music literature for bands, orchestras and small ensembles are evaluated. Prerequisites: Admission to graduate program.

#### **MUSC 662 SEMINAR IN CHORAL (VOCAL) MUSIC (3)**

Comparative analysis of current methods and materials used in schools and colleges. Choral conducting and repertoire. Style interpretation, tone quality diction, rehearsal and conducting techniques are analyzed. Prerequisite: Consent of department chairperson.

#### **MUSC 670-679 SPECIAL TOPICS IN MUSIC (3)**

In-depth study of a selected topic in music. Specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Approval by the graduate advisor is required. Each topic may be taken as a separate course. Prerequisite: Graduate standing.

#### **MUSC 695 RESEARCH METHODS IN MUSIC AND MUSIC EDUCATION (3)**

The application of methods of research to problems in the field of music and music education, the preparation of bibliographies and specialized techniques for the location, collection and treatment of data and a written exposition of research projects in the area of the student's major interest. Prerequisite: Consent of department chairperson.

#### **MUSC 897 GRADUATE PROJECT IN MUSIC (1)**

Projects include graduate recital, musical composition or research paper.

#### **MUSC 898 MASTER'S THESIS IN MUSIC (3)**

#### **MUSC 899 THESIS CONTINUUM (1)**

#### **MUSIC APPLIED (MUSA)**

**MUSA 671-672 BRASS PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 673-674 PIPE ORGAN PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 675-676 PERCUSSION PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 677-678 PIANO PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 679-680 STRING PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 681-682 VOICE PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 683-684 WOODWIND PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 685-686 GUITAR PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 687-688 COMPOSITION PRIVATE LESSONS (1-3)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

**MUSA 689-690 HARPSICHORD PRIVATE LESSONS (1-2)** Fee of \$85.00 per semester credit. One half-hour lesson per week. May be repeated for further credit. Prerequisite: Consent of department chairperson.

#### **MUSIC EDUCATION (MUED)**

**MUED 508 ORGANIZATION AND ADMINISTRATION OF MUSIC EDUCATION (2)** Seminar discussion of the problems of organization and administration of music education. Prerequisite: Music Student Teaching or consent of instructor.

#### **MUED 519 WORKSHOP: ASPECTS OF STRING TEACHING (2-6)**

An extension course to be offered at various locations. The workshop includes private lessons, master classes, supervised laboratory experiences, as well as concerts, lectures and rehearsals designed to enrich the experience of string teachers and those interested in becoming public school string teachers. Sessions will vary in length from one to six weeks with appropriate credit awarded according to course requirements and contact hours. Prerequisite: Fulfillment of all requirements for teacher certification in instrumental music and consent of instructor.

**MUED 601 SEMINAR IN CURRENT TRENDS IN MUSIC AND MUSIC EDUCATION (3)** Current philosophies and objectives of music scope and sequence of music curricula (vocal and instrumental) in the schools. Prerequisite: Consent of department chairperson.

**MUED 603 MUSIC IN SPECIAL EDUCATION (3)** Musical curriculum materials and activities addressing the needs of handicapped students in school settings. Teacher skill development in adapting lesson plans, developing Individual Education Programs and program implementation. Prerequisite: MUED 307 or MUED 309 or permission of chairperson.

**MUED 617 CHORAL WORKSHOP IN ELEMENTARY AND SECONDARY SCHOOL MUSIC (2)** Observation, conducting and evaluation of rehearsals of the chorus made up of workshop participants. Includes sources and selection of music, audition and classification of voices, pedagogy, rehearsal techniques, choral arranging, and program building and programming. Prerequisite: MUSC 327.

**MUED 621 WORKSHOP: TEACHING GUITAR IN THE CLASSROOM (2)** Basic performance technique, visualization, repertoire, guitar pedagogy, curriculum development, and performance analysis. Students observe, evaluate, and participate in laboratory class instruction. Prerequisite: MUED 307 or consent of instructor.

**MUED 639 ADVANCED WORKSHOP IN ELEMENTARY AND JUNIOR HIGH SCHOOL GENERAL MUSIC (2)** Observation, development and evaluation of current materials and methodology in elementary and junior high school general music. Prerequisite: MUED 307 or MUED 309 or equivalent.

**MUED 670-679 WORKSHOPS IN MUSIC EDUCATION (1-3)** Selected topics in music education. Can be repeated for credit when topics differ. Prerequisite: Graduate standing.

## OCCUPATIONAL THERAPY

Chairperson: Marie-Louise Blount

Graduate Departmental Coordinator, Occupational Therapy Program:  
Charlotte Exner

### OCCUPATIONAL THERAPY (OCTH)

**OCTH 528 OCCUPATIONAL THERAPY ORGANIZATION AND ADMINISTRATION (3)** Administrative and organizational theory applied to occupational therapy service programs. Content includes personnel relationships and supervision, systems analysis, program planning, budgeting, space and facilities planning, communication systems, and programs for staff and student development. Prerequisites: OCTH 213, HLTH 207. Fall.

**OCTH 570-579 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3)** Designed to explore topics of special interest in the theory and practice of occupational therapy. Prerequisite: consent of instructor. May be repeated for a maximum of three credits.

**OCTH 601 THEORY AND PRACTICE OF PSYCHOSOCIAL OCCUPATIONAL THERAPY (3)** Psychosocial theories underlying the practice of occupational therapy; current and projected models of clinical practice. Prerequisite: Permission of instructor.

**OCTH 603 ISSUES IN OCCUPATIONAL THERAPY (3)** Analysis of current issues in occupational therapy. Prerequisite: Admission to Occupational Therapy master's program.

**OCTH 611 ADVANCED OCCUPATIONAL THERAPY THEORY AND PHILOSOPHY (3)** Theory and philosophy of occupational therapy. Prerequisite: Admission to Occupational Therapy master's program, and consent of instructor.

**OCTH 613 ADVANCED RESEARCH METHODS IN OCCUPATIONAL THERAPY (3)** Examination of exploratory, descriptive survey, and experiential research methods as they have and can be used in Occupational Therapy. Prerequisites: Admission to Occupational Therapy master's program; course in statistics.

**OCTH 621 ASSESSMENT TECHNIQUES IN GERONTIC OCCUPATIONAL THERAPY (3)** Theory and practice of needs assessment and evaluation in gerontic occupational therapy. Prerequisite: Consent of instructor.

**OCTH 623 ASSESSMENT IN PEDIATRIC OCCUPATIONAL THERAPY (3)** Theory and practice of evaluation in the area of pediatric Occupational Therapy. Prerequisite: Consent of instructor.

**OCTH 625 ASSESSMENT AND TREATMENT OF THE ADULT WITH CENTRAL NERVOUS SYSTEM DYSFUNCTION (3)** Investigation of current theories of occupational therapy assessment and intervention strategies used in adult central nervous dysfunction. Prerequisite: OCTH 611 and 613 and consent of instructor.

**OCTH 627 ASSESSMENT AND TREATMENT OF THE ADULT WITH BIOMECHANICAL DYSFUNCTION (3)** Investigation of current theories of occupational therapy assessment and intervention strategies used in adult biomechanical dysfunction. Prerequisite: OCTH 611 and 613 and consent of instructor.

**OCTH 631 TREATMENT IN GERONTOLOGY (3)** Therapeutic modalities and systems providing service for geriatric population. Prerequisite: OCTH 621.

**OCTH 633 OCCUPATIONAL THERAPY TREATMENT IN PEDIATRICS (3)** Advanced treatment principles for developmental disabilities from the neurodevelopmental viewpoints, including provisions for care of children in health delivery systems including the school. Prerequisite: OCTH 623.

**OCTH 670-679 SPECIAL TOPICS IN OCCUPATIONAL THERAPY (1-3)** Study of selected topics in Occupational Therapy. Prerequisites: Vary with each topic, consent of instructor.

**OCTH 691 DIRECTED READINGS IN OCCUPATIONAL THERAPY (1-3)** Guided review of literature to explore in depth subjects related to occupational therapy theory and practice. Prerequisite: Graduate standing.

**OCTH 781 GRADUATE SEMINAR IN OCCUPATIONAL THERAPY (3)** Independent research with feedback and discussion. Prerequisites: OCTH 611, OCTH 603, OCTH 613.

**OCTH 791 INDEPENDENT STUDY (1-6)** In-depth investigation specific to area of concentration. Prerequisites: Admission to graduate program in Occupational Therapy. Consent of instructor.

**OCTH 897 GRADUATE PROJECT IN OCCUPATIONAL THERAPY (3)** Study and preparation of a project oriented toward the application of specific techniques in occupational therapy. Prerequisites: OCTH 611, OCTH 603, OCTH 613.

**OCTH 898 THESIS (6)** Original investigation using an acceptable research method and design conducted under the direction of a faculty committee. Prerequisites: OCTH 611, OCTH 603, OCTH 613.

**OCTH 899 THESIS CONTINUUM (1)**

## PHILOSOPHY AND RELIGION

Chairperson: James J. Hill

### PHILOSOPHY AND RELIGION COURSES (PHIL)

**PHIL 501 PHILOSOPHIES OF INDIA (3)** Examination of major ideas in the Vedic, Epic, Classical darsana, and modern periods. Prerequisite: One lower level course in philosophy or consent of instructor.

**PHIL 502 PHILOSOPHIES OF CHINA AND JAPAN (3)** Examination of some major philosophical systems through selected writings in translation. Prerequisite: One lower level course in philosophy or consent of instructor.

**PHIL 505 ARCHAEOLOGY OF PALESTINE AND TRANS-JORDANIA (3)** A study using audio-visual aids of the aims, techniques and artifacts of biblical archaeology. Research exercises may require the use of museums, collections and libraries. Prerequisite: One previous course in philosophy or religion.

**PHIL 509 AESTHETICS (3)** An analytical and historical examination of concepts of the nature of art, beauty, aesthetic value, aesthetic perception, and of the modes of existence of artifacts. Prerequisite: One lower-division course in philosophy.

**PHIL 511 ETHICS (3)** Analysis of readings from the principle classical and contemporary ethical sources, study of the basic moral concepts as found in these sources; application to contemporary moral concerns. Prerequisite: One lower-division course in philosophy.

**PHIL 513 PHENOMENOLOGY (3)** An examination of phenomenology as both a philosophical method and philosophical position. Theme to be considered include consciousness, the body, time and the experience of others. Primary course readings in the works of Husserl, Heidegger, Sartre, Merleau-Ponty. Prerequisite: six credits in philosophy.

**PHIL 515 MARXISM (3)** The course examines the basic concepts of Marxist philosophy. It considers such topics as dialectical reason, alienation, class society, the state, and Marx, Engles, Lenin, Luxemburg, Nkrumah, Lukacs, Gramsci. Prerequisite: six credits in philosophy.

**PHIL 516 THE HISTORICAL GEOGRAPHY AND ARCHAEOLOGY OF PALESTINE (3)** This course seeks to assess the role of geographical, archaeological, and historical disciplines, used conjointly, in Biblical interpretation. Prerequisite: One previous course in philosophy or religion.

**PHIL 517 EXISTENTIALISM (3)** Some of the major existentialist philosophers will be studied, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Beauvoir. The philosophical themes of transcendence, the absurd, estrangement and anxiety will be considered. Prerequisite: six credits in philosophy.

**PHIL 522 LATE CLASSICAL AND MEDIEVAL PHILOSOPHY (3)** This course will deal with the philosophical schools of the Hellenistic and Roman periods, viz., Stoicism, Epicureanism, Scepticism and Neo-Platonism and with the two main Christian philosophies of the Middle Ages, viz., Augustinianism and Thomism. Emphasis will be placed on the fusion of Greek and Jewish moral and religious speculation and the rise of Christianity. Prerequisite: One lower-division course in philosophy.

**PHIL 523 LATE MEDIEVAL AND RENAISSANCE PHILOSOPHY (3)** Philosophers and philosophical currents of the 14th, 15th and 16th centuries. Emphasis will be placed on transformations in Western thought and the emergence of new themes and directions: forms of nominalism and new concepts of thinking and knowledge; new forms of mysticism; new and multiple cosmologies and concepts of substance. The appearance of philosophies of man, love and social and political action; new concepts of will, virtue and power. The emergence of interrelationships between philosophy and science and technology; new concepts of history; the development of an ideal of social immortality. Prerequisite: One lower-division course in philosophy.

**PHIL 524 MODERN PHILOSOPHY (3)** The history of philosophy beginning with Descartes through the 19th century. Prerequisite: One lower-division course in philosophy.

**PHIL 525 SCHOOLS OF CONTEMPORARY PHILOSOPHY (3)** A survey with varying emphasis on a number of such contemporary philosophical positions as pragmatism, phenomenology, logical positivism, the analysts, neo-Aristotelianism, the philosophers of science, and the existentialists. Prerequisite: One lower-division course in philosophy.

**PHIL 526 AMERICAN PHILOSOPHY (3)** The history of the main currents of American philosophical thought as exemplified in such writers as Edwards, Emerson, Pierce, James, Royce, Dewey and Whitehead. Prerequisite: One lower-division course in philosophy.

**PHIL 531 CONCEPTS OF WOMAN: A HISTORICAL APPROACH (3)** Various concepts which philosophers have used to define woman. A historical survey approach, with readings from Plato, Aquinas and others, and ending with Beauvoir. Prerequisite: One lower-division course in philosophy.

**PHIL 533 CONTEMPORARY ETHICAL PROBLEMS (3)** The course will treat the meaning of moral experience and the moral problems which arise in connection with human sexual integrity, ownership of property, welfare, violence, civil disobedience, punishment, war, and truth telling in social relations and government. Prerequisite: One lower-division course in philosophy.

**PHIL 539 THEORY OF KNOWLEDGE (3)** An historical and systematic approach to the truth value and elements of the forms of human knowledge. The theories of major philosophers will be studied. Prerequisite: One lower-division course in philosophy.

**PHIL 540-549 PHILOSOPHICAL SYSTEMS (3)** The study of a major philosophical system or position, classical or modern, and of its important proponents. Prerequisite: Two previous courses in philosophy.

**PHIL 551 PHILOSOPHY OF RELIGION (3)** Exposition of various approaches to the philosophy of religion with an analysis of the major issues on which they differ and agree. Prerequisite: Two previous courses in philosophy or religion.

**PHIL 554 INTERPRETATIONS OF THE BIBLE: OLD TESTAMENT (3)** Major themes of the Biblical Literature, and of its religious, philosophical and cultural implications. Prerequisite: One lower-division course in philosophy or religion.

**PHIL 555 INTERPRETATIONS OF THE BIBLE: NEW TESTAMENT (3)** Major themes of the Biblical Literature, and of its religious, philosophical and cultural implications. Prerequisite: One lower-division course in philosophy or religion.

**PHIL 557 COMPARATIVE RELIGION (3)** Study of a number of the world's major religious traditions emphasizing specific philosophical and psychological problems encountered therein. Prerequisite: At least one lower-division course in philosophy, religion or history..

**PHIL 561 ETHICS OF MEDICINE AND THE LIFE SCIENCES (3)** A search for guidelines in such moral problems as abortion, the care of the dying, organ transplants, informed consent in therapy and experimentation, adequate health care and its just distribution, control of human behavior by drugs, surgery, etc., test-tube reproduction, population control, genetic engineering and counseling. Prerequisite: One lower-division course in philosophy or consent of instructor.

**PHIL 563 BUSINESS ETHICS (3)** Economics is one of the "moral sciences" in so far as it deals with an important sphere of human activity which intends a good. This course will institute a philosophical reflection on economic ideas as they appear in the three main categories of opinion, viz., conservative, liberal and radical. Attention will be drawn to the epistemological, ethical and metaphysical presuppositions of these traditions. Prerequisite: A lower-division course in philosophy or consent of instructor.

**PHIL 570-579 PHILOSOPHICAL PROBLEMS (3)** A consideration of one of the perennial interests of philosophy. Prerequisite: Two previous courses in philosophy.

**PHIL 580-589 PHILOSOPHICAL TOPICS (3)** Courses offered under this title will be of variable content. Topics of traditional philosophical interest or of philosophical problems in other areas of knowledge or of contemporary interest will be offered. Prerequisite: One lower-division course in philosophy.

# **PHYSICAL EDUCATION**

Chairperson: J. Ellen Eason

## **PHYSICAL EDUCATION COURSES (PHEC)**

**PHEC 509 STRESS MANAGEMENT, TENSION CONTROL AND HUMAN PERFORMANCE (3)** Presents information about the manifestation of stress and systematic programs for tension control. The correlates surrounding progressive muscle relaxation and biofeedback are explored in detail as well as the neurological responses which produce tension responses. Lectures are combined with laboratory experiences in an effort to understand and practice relaxation techniques. Prerequisites: One psychology and/or biological science course.

**PHEC 515 ADVANCED CARE AND PREVENTION OF ATHLETIC INJURIES (3)** Care and treatment of athletic injuries not covered in PHEC 315; fitting and evaluation of protective equipment; drugs in athletics; and the use of physical therapy modalities. Prerequisite: PHEC 315 or equivalent, or consent of instructor.

**PHEC 523 ADAPTIVE PHYSICAL EDUCATION (3)** Recognition of pupils with physical deviations, and use of special or modified physical education activities. Prerequisites: PHEC 311, BIOL 213-214.

**PHEC 530 MOVEMENT EDUCATION IN THE ELEMENTARY SCHOOL (3)** Application of problem solving and individualized methods of teaching of movement for the elementary school child. Development of programs and materials for teaching creative dance, games and sports. Survey of current literature.

**PHEC 535 PROGRAMS IN OUTDOOR EDUCATION (3)** Examines the varied programs in Outdoor Education offered within the state, nation, and selected foreign countries. Traditional and innovative programs will be reviewed. Concepts revealed will be contrasted and meeting educational objectives. Several field trips are required. Open to Education majors. Prerequisite: Six hours of physical education, recreation or education. Graduates: Degree in Physical Education.

**PHEC 541 THE AMERICAN WOMAN IN SPORT (3)** Historical, physiological, psychological, sociological, and philosophical perspectives and societal attitudes toward women who participate in sport. Prerequisites: PSYC 101 or SOCI 101 or WMST 231.

**PHEC 551 HISTORY OF AMERICAN SPORT (3)** Explores sport in American society from a historical perspective. It includes major patterns of growth and role of sports in American society. Emphasis is on methods of historical research and critical analysis of the discipline of sport history. Prerequisites: PHEC 299 or consent of instructor.

**PHEC 570-579 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3)** Workshop designed for study of special topics of current interest in physical education and athletics. Content varies and will focus on substantive material or operational problems. May be repeated for a maximum of six credits. Prerequisite: Consent of workshop director and/or graduate coordinator.

**PHEC 594 TRAVEL STUDY (3)** Study of selected physical education programs, practices, or facilities. Study group will be accompanied by TSU Physical Education Department faculty member. Prerequisite: As specified in course outline and consent of instructor.

**PHEC 596 INDEPENDENT STUDY (1-3)** Course is designed to permit students to take courses which they cannot arrange within the regular semester schedule. All work will be under the direct supervision of an assigned faculty member. No more than 3 credits may be earned in independent study unless permission of the department chair is obtained.

**PHEC 607 MOTOR DEVELOPMENT OF CHILDREN: INFANCY THROUGH ADOLESCENCE (3)** Current research and literature in motor development and performance of children from infancy through adolescence. Impact of motor development on cognitive, affective and psychomotor development of the child. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 609 PSYCHOLOGY OF MOTOR LEARNING (3)** Psychological factors affecting the acquisition of motor skills, emphasis on methodology. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 611 SPORT PSYCHOLOGY (3)** A data based analysis of the behavioral consequences and antecedents of the sport experience. Investigation of current research in the field with attention to the research process. Experience with a research experiment in either a laboratory or field setting. Prerequisite: Six hours of upper division PHEC courses or consent of instructor.

**PHEC 612 SIGNIFICANT PERIODS IN PHYSICAL EDUCATION (3)** Influence of Greek, Roman, European, and English concepts of physical education upon the formation and development of American concepts of physical education. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 613 ANALYSIS OF PHYSIOLOGICAL CONCEPTS (3)** Analysis of research and laboratory application of the physiological factors that affect human efficiency before, during and after exercise. Such as: metabolism, circulation-respiration, muscular physiology, endocrine system, ergogenic aids, and environmental factors. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 614 ANALYSIS OF TEACHING BEHAVIOR IN PHYSICAL EDUCATION (3)** Review of research on teaching; analysis of components of the instructional process and the development of systematic observation and analysis of instruction. Prerequisite: Certification as a physical education teacher or appropriate experience in the field as determined by the program coordinator.

**PHEC 621 EDUCATIONAL GYMNASTICS (3)** Theoretical and historical basis for problem-solving and individualized methods in teaching gymnastic movement. Prerequisites: Undergraduate major in physical education, and consent of graduate coordinator.

**PHEC 630 MECHANICAL ANALYSIS OF MOVEMENT (3)** Research and mechanical principles are analyzed relating to efficient human movement. Physical laws of leverage, motion, projectiles, gravity, buoyancy, and equilibrium. Prerequisites: PHEC 311, undergraduate degree in physical education, consent of graduate coordinator.

**PHEC 633 ADMINISTRATION AND SUPERVISION OF PHYSICAL EDUCATION (3)** Administration and supervision of programs of physical education. Problems of personnel, program, facilities, and evaluation. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 639 CRITICAL ANALYSIS OF CURRENT LITERATURE IN PHYSICAL EDUCATION (3)** Investigation and assessment of the physical education profession: contemporary leaders, books, journals, periodicals, projects, trends, issues, and innovations. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 641 EVALUATIVE TECHNIQUES IN PHYSICAL EDUCATION (3)** Administration, assessment, and interpretation of measurements of classification indexes, power, agility, balance, flexibility, kinesthetic perception, speed and reaction time, strength, muscular endurance, cardiovascular conditions, and sport skills. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 645 FACILITIES AND EQUIPMENT FOR PHYSICAL EDUCATION (3)** Principles of programming and planning facilities for physical education. Selection, purchase and care of equipment. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 651 COMPARATIVE PHYSICAL EDUCATION—CONTEMPORARY AND INTERNATIONAL (3)** Analysis of patterns of physical education in selected countries throughout the world. Prerequisites: Undergraduate major in physical education and consent of graduate coordinator.

**PHEC 653 CONTEMPORARY PHYSICAL EDUCATION CURRICULUM (3)** Aims, objectives, content, and methods in curriculum design for elementary and secondary school physical education. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 661 OUTDOOR LEISURE (3)** Man and leisure in a changing society and their impact on the natural environment. Development of outdoor recreation and adventure skill interest, teaching and leadership techniques. Prerequisites: Undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 663 CAMP ADMINISTRATION AND OUTDOOR EDUCATION (3)** Organization and structure, personnel, program, site development, business management, food management, health and safety, public relations and evaluation in the modern outdoor education center or camp. Prerequisites: B.S. degree in recreation, physical education or education.

**PHEC 670 SELECTED TOPICS IN PHYSICAL EDUCATION (1-3)** The course will focus on an indepth study of selected topics in sport and physical education. Content will vary and will focus on current research and/or relevant sport and physical education concerns. The specific requirements and prerequisites will vary with each topic. Prerequisite: Approval by the Department Graduate Coordinator.

**PHEC 685 RESEARCH SEMINAR (3)** Research on a problem through consultation with designated faculty members. Prerequisites: EDUC 691, undergraduate degree in physical education and consent of graduate coordinator.

**PHEC 696 INDEPENDENT STUDY IN PHYSICAL EDUCATION (3)** Supervised study of research problems and special projects in specified areas of physical education. Prerequisites: PHEC 639 or PHEC 641 and consent of graduate coordinator.

**PHEC 697 DIRECTED READING IN PHYSICAL EDUCATION (3)** Extensive reading in selected areas of physical education. Prerequisites: PHEC 639 or PHEC 641 and consent of graduate coordinator.

if student has taken PHSC 161 and/or PHSC 121. Prerequisite: HSC 101 or equivalent.

**PHSC 511 PHYSICAL SCIENCE FOR TEACHERS (3)** An inservice course for teachers in the elementary and/or junior high school designed to develop physical science concepts. Emphasis will be placed on developing these concepts through laboratory work. Prerequisites: Teaching experience.

**PHSC 521 STRUCTURAL GEOLOGY (3)** This course involves the identification and analysis of tectonic forms to determine the physical conditions of formation and the context of historical geological events in which they occur. Prerequisites: PHSC 121 and PHYS 211 or 221.

**PHSC 522 GEOMORPHOLOGY OF THE EASTERN UNITED STATES (3)** Extent, nature, and geological history of the geomorphic provinces of the Eastern United States. Emphasis on the Middle Atlantic states. Field excursions in the Maryland area. Prerequisite: PHSC 222.

**PHSC 531 MINERALOGY (4)** The study of minerals with emphasis on crystallography, crystal chemistry, and chemical-structural classification. Laboratory identification of minerals both in hand specimen and thin section by application of principles of optical mineralogy. Three lecture hours and two hours laboratory. Prerequisites: PHSC 121; CHEM 101.

**PHSC 533 PETROLOGY OF IGNEOUS AND METAMORPHIC ROCKS (4)** Study of the properties and genesis of two major rock groups. Megascopic and microscopic techniques in rock classification. Environments of formation. Three lecture hours and two hours laboratory. Prerequisite: PHSC 331.

**PHSC 541 OPTICAL MINERALOGY AND PETROGRAPHY (3)** This course includes the theory and application of polarized light and elements of crystallography in the analysis of rock forming minerals by use of a petrographic microscope. Prerequisite: PHSC 333.

**PHSC 543 SEDIMENTOLOGY AND SEDIMENTARY PETROLOGY (3)** The study of the materials and processes involved in the formation of sedimentary deposits. Emphasis will be on analysis of sediments and sedimentary structures helpful in determining depositional environments. Two hours of laboratory and two hours of lecture per week. Prerequisites: PHSC 121, CHEM 101.

**PHSC 570-579 SPECIAL TOPICS IN PHYSICAL SCIENCE (1-4)** The study of special topics in the areas of physical science. Special topics will be determined by their need for study and relevance to existing courses.

**PHSC 595 COURSE RESEARCH IN 500-LEVEL COURSES (1)**

## PHYSICS

Chairperson: Eddie Loh

### PHYSICAL SCIENCE COURSES (PHSC)

**PHSC 501 ADVANCED LABORATORY IN PHYSICAL SCIENCE (2)** Exacting laboratory work of an advanced nature under the guidance of the Physical Science Department staff. Each student will present and defend his work at a seminar. May be repeated for a maximum of six credits. Prerequisite: Consent of instructor.

**PHSC 503 EARTH-SPACE SCIENCE IN CHILDHOOD EDUCATION (3)** Physical science principles applied in the study of earth and space. Emphasis on experimental and discovery approaches that may be used in the elementary school. Prerequisites: PHSC 101.

**PHSC 505 FUNDAMENTAL CONCEPTS IN THE EARTH SCIENCES (3)** Principles of astronomy, geology and related earth sciences. Methods of investigation employed by earth scientists. Observations in the planetarium and field studies in the Baltimore area. Two lecture hours and one two-hour laboratory period. No credit allowed

### PHYSICS COURSES (PHYS)

**PHYS 504 HISTORY AND PHILOSOPHY OF PHYSICS (2)** The works of Sarton, Cohen, Singer and Dampier on the history and significance of physical concepts. The philosophical concepts of Bridgeman, Russell, Heisenberg and other contemporaries interpreted in the historical development. Two lecture hours.

**PHYS 507 INTRODUCTORY MATHEMATICAL PHYSICS (3)** As the mathematical maturity of the students will allow, selected topics will be examined such as the generalized expressions for forces and potentials, vector analysis, applications of Fourier series and complex variables, and solutions of the harmonic oscillator and wave equations. Three lecture hours. Prerequisite: PHYS 222 or PHYS 212, MATH 373 or concurrently.

**PHYS 509 MATHEMATICS OF MOTION (4)** This course, intended to meet the needs of mathematics major students, illustrates the application of mathematics to major physical phenomena: the particle and wave nature of motion. The methods developed are applicable to both the macrocosm and microcosm. Prerequisites: COSC 235, MATH 273 and MATH 274.

**PHYS 511 MODERN PHYSICS (4)** Special relativity, the quantum theory, atomic structure and spectra, and nuclear structure and reactions are the main topics covered by the course. Other topics which may be covered involve molecular, solid state, and high energy physics. Four lecture hours. Prerequisite: MATH 274, PHYS 212 or PHYS 222.

**PHYS 533 BASIC ELECTRONICS (4)** Circuit components, characteristics of semi-conductors, electrical measurements, method of circuit analysis, electronic devices. Three lecture hours and one three-hour laboratory period. Prerequisite: PHYS 212 or PHYS 222 or consent of instructor.

**PHYS 534 DIGITAL ELECTRONICS (4)** Subjects covered will be basic concepts of digital electronics such as: gates, logic modules, truth tables, digital codes, sequential systems, semi-conductor memories, decade counters, etc. The laboratory program is designed to give students firsthand experience on the material covered in lecture using integrated circuits and LED display systems. Two hours lecture, three hours laboratory. Prerequisite: MATH 115 or equivalent.

**PHYS 535 ELECTRONICS (3)** Principles of transistors with emphasis on their design and construction and an introduction to logic circuits. Two lecture hours and one two-hour laboratory. Prerequisites: PHYS 305, 1903.335.

**PHYS 537 INTRODUCTION TO MICROPROCESSOR-BASED DIGITAL SYSTEMS (3)** An introductory course on basic microcomputer concepts. Topics covered include basic structure and organization of microcomputers, digital logic design, assembly language programming, memory elements, and applications. Hardware oriented experiments will be conducted providing practical experience in interfacing the microcomputer to a variety of instruments and input-output devices. Two hours lecture and two hours laboratory. Prerequisite: PHYS 337.

**PHYS 541-542 INTERMEDIATE PHYSICS LABORATORY, I, II (3, 3)** First Semester: The measurement of several fundamental physical constants. Exploration of classical and modern research methods: Lasers, holography, optical and nuclear spectroscopy. Second Semester: Several advanced experiments, a research project. Familiarization with machine shop procedure, vacuum and other experimental techniques. Five laboratory hours. Prerequisite: PHYS 311 or concurrently. (Lab II: Prerequisite: PHYS 341).

**PHYS 545 LASERS & HOLOGRAPHY (3)** The wavefront-reconstructions, laser, theory, the properties and making of holograms, and the applications of lasers and holography will be covered. Special projects will be assigned to students depending upon their individual theoretical and experimental background. Prerequisite: PHYS 222 or consent of instructor.

**PHYS 550 MECHANICS (4)** Systems of coordinates and transformations, kinematics, Newtonian dynamics, linear systems and oscillators, central force motion, generalized coordinates, and Lagrange's equations. Optional topics: Hamiltonian's principle, perturbation techniques, non-linear behavior, coupled oscillations. Four lecture hours. Prerequisites: PHYS 222 or PHYS 212, MATH 274.

**PHYS 551 MECHANICS II (4)** Continuation of PHYS 301. Inertia and stress tensors; continuum mechanics; rotation of a rigid body; theory of small vibrations; basic postulates of the special theory of relativity; relativistic dynamics; lattice vibrations. Other special topics of advanced mechanics. Prerequisites: PHYS 351 and PHYS 307.

**PHYS 552 THERMODYNAMICS AND KINETIC THEORY (3)** Principles and laws of classical thermodynamics applied to simple irreversible processes, including chemical, elastic, electric and magnetic phenomena; thermodynamic functions and Maxwell's relations; the conservation equations in elementary kinetic theory; fluctuations; and irreversible transfer effects. This course may be taken concurrently with PHYS 212 or PHYS 222 by permission. Three lecture hours. Prerequisites: PHYS 212 or PHYS 222, MATH 274.

**PHYS 553 PHYSICAL OPTICS (3)** Electromagnetic theory of light, wave solutions, interference, diffraction, scattering, radiation from coherent and incoherent sources, elementary theory of masers and lasers. Three lecture hours. Prerequisite: PHYS 355 or consent of instructor.

**PHYS 554 ELECTRICITY AND MAGNETISM (4)** Electrostatics, magnetostatics, and electromagnetic radiation. Among the topics normally covered are the Divergence Theorem and Stokes' Theorem, electrostatics in free space and in dielectric materials, the Biot-Savart Law, the magnetic vector potential, inductance and electromotance, magnetic materials, Maxwell's Equations in free space and in materials. Other topics sometimes covered include wave guides, Snell's Laws, radiation from antennas, radiation from accelerated point charges. Four lecture hours. Prerequisite: MATH 274, PHYS 212 or PHYS 222. (Not open to those who have taken PHYS 305.)

**PHYS 555 INTRODUCTORY QUANTUM MECHANICS (3)** The Schrödinger equation, states of one particle in one dimension, potential barrier problems in one dimension, the harmonic oscillator, system of particles in one dimension, motion in three dimensions, angular momentum, spin, application to atomic physics. Prerequisites: PHYS 351, MATH 373.

**PHYS 556 INTRODUCTION TO STATISTICAL MECHANICS (3)** Distribution functions, microcanonical, canonical and grand canonical ensembles, the partition function and thermodynamics relations. Fermi-Dirac and Bose-Einstein statistics, some simple models and applications, the Maxwell-Boltzmann transport equation and the hydrodynamic equation, transport coefficients. Three lecture hours. Prerequisite: PHYS 455.

**PHYS 559 NUCLEAR PHYSICS (3)** A lecture and problem course dealing on an introductory level concerning experimental and theoretical method for the study of nuclear structure. Topics to be covered include: properties of nuclei, electromagnetic transition and beta decay; nuclear models, nuclear reactions, and two body interactions. Given in alternate years. Prerequisite: PHYS 311; PHYS 307 or consent of instructor.

**PHYS 570-579 SPECIAL TOPICS IN EARTH SCIENCE (1-4)** Specific topics in the area of earth science (geology, astronomy, atmospheric sciences, oceanography). Topics will be determined by their need for study and relevance to existing courses. Prerequisite: Consent of instructor.

**PHYS 585-586 PHYSICS SEMINAR I, II (1, 1)** Students participate in colloquia on topics of current interest in physics research under guidance instructor. One lecture hour. Prerequisite: Senior standing or consent of instructor.

**PHYS 590 INDEPENDENT STUDY IN PHYSICS (1-4)** Prerequisite: At least junior status and one course in the Physics Department. May be repeated for a maximum of six credits.

**PHYS 591 DIRECTED READINGS (1-4)** Prerequisites: At least junior status and one course in the Physics Department. May be repeated for a maximum of six credits.

**PHYS 595-596 RESEARCH PROBLEMS IN PHYSICS (1-3)** Individual project in any branch of physics. Students can choose either to work on projects or in areas suggested by physics faculty. At the completion of a project, the student must write a formal research paper on the work done. Students may register for this more than once but at different levels. Prerequisite: Permission of the instructor who will direct the proposed work.

# POLITICAL SCIENCE

Chairperson: Eric Belgrad

## POLITICAL SCIENCE COURSES (POSC)

**POSC 501 INTRODUCTION TO LAW (3)** The legal processes in the United States. This course is designed primarily for the liberal arts student. Prerequisites: Sophomore standing and one course of introductory political science.

**POSC 503 THEORY OF INTERNATIONAL POLITICS (3)** The theories of mutual relations of states. Elements of national power; international politics as a struggle for power. Restraints upon the struggle for power. Prerequisite: HIST 242 or POSC 107 or consent of instructor.

**POSC 505 URBAN GOVERNMENT AND POLITICS (3)** The political history of American cities from the eighteenth century through the recent reform movement. City charters, home rule, types of executives, political machines. The metropolitan area. Prerequisite: POSC 103.

**POSC 507 CONTEMPORARY INTERNATIONAL POLITICS (3)** An examination of the conduct of international relations by the Western, the Communist, and the non-aligned blocs in the Post-World War period. Prerequisite: POSC 107 or POSC 303, or consent of instructor.

**POSC 508 COMPARATIVE GOVERNMENT OF FOREIGN POWERS: THE WESTERN WORLD (3)** An examination of the problems of modernization and stable constitutional rule in England, France, Italy, and Germany. Prerequisite: POSC 101 or POSC 137 or consent of instructor.

**POSC 509 COMPARATIVE POLITICAL SYSTEMS (3)** The course will attempt to bring together the analytical concepts and methodological techniques that may be applied to the study of political systems in a comparative sense. Prerequisite: POSC 103 or POSC 137 or consent of instructor.

**POSC 511 AFRICAN GOVERNMENT AND POLITICS (3)** An examination of the rise of African nationalism and the emergence of new states in Africa. Attention is directed to the influence of colonial rule and traditional political institutions on the development of party politics, patterns of government, and Pan-African ideas. A trend towards the military rule, political problems of the independent Africa, and the efforts of each country to build a strong and viable political system are emphasized. Prerequisite: Any Political Science course or consent of instructor.

**POSC 512 THE LATIN AMERICAN POLICY OF THE UNITED STATES (3)** An analysis of the Latin American Policy of the United States from the Monroe Doctrine to the present. Emphasis will be on historical, political, economic, and security factors in the ebb and flow of inter-American relations. Prerequisite: POSC 101 or POSC 137 or consent of instructor.

**POSC 513 POLITICAL BEHAVIOR (3)** The purpose of this course is to introduce the student to the substantive theory and methodology of behavioral analysis. Topics include voting behavior, elite behavior, and an analysis of types of political conflict. Prerequisite: POSC 101 or consent of instructor.

**POSC 514 PUBLIC ADMINISTRATION (3)** Administration as a central element of contemporary society, with special reference to the problems of government organization, control, personnel, finance, and public relations. Prerequisite: POSC 103.

**POSC 515 THE PRESIDENCY (3)** A discussion of the origin of the office, the selection of the President and policymaking in the executive branch. Prerequisite: POSC 103.

**POSC 516 CONGRESS (3)** An investigation of the relations of Congress with the other branches of government and with the political parties and interest groups. The course also examines the

relationships between a member of Congress and his constituency as well as the internal dynamics of Congress. Prerequisite: POSC 103.

**POSC 517 AMERICAN POLITICAL PARTIES (3)** Origin and development of the American two-party system. The activities of pressure groups and organizations, and their effects upon the party system. Prerequisite: POSC 103 or consent of instructor.

**POSC 518 CONSTITUTIONAL LAW (3)** A study of the Constitution of the United States based on leading judicial decisions interpreting the Constitution and statutes from 1789 to the present. Prerequisite: POSC 103.

**POSC 527 POLITICAL THEORY I (3)** Political thought in the West from the Greeks to the end of the sixteenth century. Prerequisite: POSC 101 or consent of instructor.

**POSC 528 POLITICAL THEORY II (3)** Political philosophers and their writings since the sixteenth century. Attention given to the conflict of ideologies in the twentieth century. Prerequisite: POSC 101 or consent of instructor.

**POSC 530 POLITICAL IDEAS OF SOCIALISM AND COMMUNISM (3)** This course deals with selected topics in the political theory of socialism and communism including socialism and the ancient regimes, socialism and political organization, Russian, Leninist and Stalinist theory, and socialist ideas in the post cold war period. Prerequisite: POSC 528.

**POSC 532 UNITED STATES-SOVIET RELATIONS (3)** Diplomatic, cultural, and economic relations between the U.S.S.R. and the U.S. Emphasis on the period since 1933 with a careful study of the effects of the Second World War upon the balance of power. Prerequisite: Any 100 level political science course or consent of instructor.

**POSC 535 AFRICA IN WORLD POLITICS (3)** The role of African nations in the nuclear age, and their efforts to achieve unity. Prerequisite: POSC 511 or consent of instructor.

**POSC 537 CASTRO AND THE CUBAN REVOLUTION (3)** A discussion of the factors that led up to the Castro Revolution in 1959 and the subsequent impact of the creation of the first socialist state on the Western Hemisphere. Prerequisite: POSC 512 or POSC 551, or consent of instructor.

**POSC 538 COMPARATIVE GOVERNMENT OF FOREIGN POWERS: RUSSIA AND THE EAST (3)** Constitutional and legal processes of Russia, Japan, China and other Eastern powers. Prerequisite: POSC 101 or POSC 137 or consent of instructor.

**POSC 539 UNITED STATES FOREIGN POLICY IN SOUTHEAST ASIA (3)** American foreign policy in Southeast Asia in the Post World War II period. Prerequisite: POSC 107 or POSC 303 or consent of instructor.

**207.541 CONTEMPORARY UNITED STATES-WESTERN EUROPEAN RELATIONS (3)** Emphasis will be on NATO, the European Economic Community, and the AngloAmerican efforts to create an Atlantic partnership between Europe and the United States. Prerequisite: POSC 103 or POSC 137, or consent of instructor.

**POSC 545 UNITED STATES FOREIGN POLICY IN SOUTH ASIA (3)** A discussion of American foreign policy in South Asia mainly since 1945. Emphasis will be on India and Pakistan. Prerequisite: POSC 107 or POSC 303 or HIST 109, or consent of instructor.

**POSC 550 GROUP POLITICS AND PUBLIC OPINION (3)** The role of pressure groups and public opinion in the American political system. Prerequisite: Junior standing and nine hours of political science, or consent of instructor.

**POSC 551 THE GOVERNMENT AND POLITICS OF LATIN AMERICA (3)** An examination of the informal and formal rules of the political "game" in Latin America with an emphasis on four types of political systems found in contemporary Latin America: democratic reformist, revolutionary, populist, and military authoritarian. Prerequisite: POSC 101 or POSC 137 or consent of instructor.

**POSC 555-556 INTERNATIONAL LAW AND ORGANIZATION I, II** (3, 3) An examination of the theories and the development of international law up to the present. The character of the modern state system, the role of international organizations, and international law and resort to force. Prerequisites: POSC 303 and HIST 242 or consent of instructor.

**POSC 557 USE OF FORCE IN INTERNATIONAL LAW** (3) The course will examine the use of force as an instrument of Foreign Policy by various states; and the survey of legal restraints on the use of force throughout history. Prerequisite: POSC 303, POSC 455 or consent of instructor.

**POSC 539 POLITICAL AND SOCIAL ASPECTS OF REVOLUTION** (3) Nature and function of violence and revolution in modern social systems. Prerequisite: POSC 101 or POSC 137 or consent of instructor.

**POSC 561 RESEARCH METHODS IN POLITICAL BEHAVIOR** (3) The major emphasis in this course will be on the use of quantitative techniques in political research. Topics include survey research, the use of computers, and statistical analysis. Prerequisite: Any course at 100 level.

**POSC 563 SCOPE AND METHODS OF POLITICAL SCIENCE** (3) The nature of political inquiry, approaches to the study of politics and government, and empirical methods of research will be the core areas of this course. Prerequisite: A minimum of nine credits in Political Science including at least one upper-division course.

**POSC 570-579 SPECIAL TOPICS IN POLITICAL SCIENCE** (3) An examination of current topics in political science. The content of the course will depend upon mutual faculty and student interest. Prerequisite: Any 100 level POSC course or consent of instructor.

**POSC 582 SEMINAR IN POLITICAL SCIENCE** (3) Various methods and techniques of research in political science, culminating in the preparation of a seminar paper. Prerequisite: Eighteen semester hours in political science, or consent of instructor.

**POSC 583 SEMINAR: POLITICS AND THE NEWS MEDIA** (3) Focuses on the relationship between the government and the news media in terms of that which exists and what it should be. Considers such topics as White House press operations, the First Amendment, government efforts to control the news, and efforts by the media at self-regulation. Prerequisite: POSC 103.

**POSC 584 SEMINAR: POLITICS AND THE BUDGETARY PROCESS** (3) An analysis of the budgetary process. The budget is considered as an instrument of fiscal policy and government planning. Budget preparation and classification with special emphasis given to program and performance budgeting. Problems in budget authorization, execution, and control. Prerequisite: POSC 375 or consent of instructor.

**POSC 585 DEMOCRATIC THEORY SEMINAR** (3) This course attempts to trace the source of Democratic Theory to their 16th century origins and to analyze the variants to that theory which have been proposed since that time. Prerequisite: POSC 428.

**POSC 590 INDEPENDENT STUDY** (3) Individual and supervised study in selected areas of political science. Admission by consent of instructor.

**POSC 591 SEMINAR IN CONTEMPORARY UNITED STATES FOREIGN POLICY** (3) An examination of the nature, basis, and instruments of American foreign policy in the contemporary age. The formulation, control, and execution of American foreign policy will also be noted. Prerequisites: POSC 303 and HIST 146 or consent of instructor.

## PSYCHOLOGY

Chairperson: John Webster

Graduate Departmental Coordinator: Anthony DiCesare

### PSYCHOLOGY COURSES (PSYC)

**PSYC 503 PSYCHOLOGY OF INFANCY AND CHILDHOOD** (3) An advanced course reviewing historical and current changes in the areas of infancy and childhood. Emotional, cognitive and individual development will be covered in depth. Emphasis is placed on critical analysis of research theory construction and methods. Prerequisite: PSYC 203. Spring.

**PSYC 504 ADOLESCENT PSYCHOLOGY** (3) Physical, emotional, intellectual development during adolescence; social development and heterosexuality; adolescent personality; problems of adjustment; juvenile delinquency. Prerequisite: PSYC 203. Fall, Spring.

**PSYC 505 THE PSYCHOLOGY OF AGING** (3) A study of the changes in learning, emotions, personality and social behavior and the impact of culture and attitude on the aging process. Prerequisite: Six hours of PSYC including PSYC 203. Students should be aware of how to read and understand psychology journals and how psychological research is conducted. Fall, Evening in alternate years.

**PSYC 507 PSYCHOLOGY OF READING** (3) Psychological foundations of current technology for teaching reading and improving reading skills. Study, evaluation, and implications of psychological studies, psychological models of reading (cognitive, information processing, and chunking), and learning theory on the beginning, intermediate, and advanced reader. Prerequisite: PSYC 101, PSYC 201, PSYC 211 or PSYC 511, recommended SPPA 105. Spring.

**PSYC 509 ORGANIZATIONAL PSYCHOLOGY** (3) Human relations in the work setting. Topics will include theory and research concerning leadership, job satisfaction and motivation, organizational communication, group dynamics, and organizational change. Prerequisite: Six hours of PSYC. Fall.

**PSYC 510 PSYCHOLOGY OF LEARNING** (3) Analysis of selected problems in both human and animal learning including reinforcement, punishment, verbal learning and verbal behavior. Prerequisite: PSYC 261. Fall, Spring and Summer.

**PSYC 511 TESTS AND MEASUREMENTS** (3) Psychological and educational testing and evaluation. The construction, administration, interpretation and use of the various evaluative devices of aptitude and achievement. Prerequisites: PSYC 101 and PSYC 111. Fall, Spring, Summer.

**PSYC 512 BEHAVIORAL PHARMACOLOGY** (3) A systematic investigation of the effects of drugs on behavior. Drug classification, historical aspects, methodological considerations, uses in treatment, drug abuse, and related topics will be considered. Prerequisite: PSYC 261 or consent of instructor. Fall, Spring.

**PSYC 513 BEHAVIOR MODIFICATION I** (3) Examination and application of the basic principles of the experimental analysis of behavior, with an emphasis on the applied aspects of this modern discipline to schools, jobs, interpersonal relations and self-control. Prerequisite: 12 hours of Psychology, including PSYC 261. Fall.

**PSYC 515 MOTIVATION** (3) Interaction between physiological, neurological, and pharmacological aspects of motivation with environmental influences such as culture, learning and social dynamics. Issues in human motivation and emotion which will be emphasized are aggression, sex, achievement (competence) and cognitive-social influences. Prerequisite: Six hours of PSYC. (PSYC 203 and Junior standing recommended). Fall, Spring.

**PSYC 516 PERSONALITY MEASUREMENT (3)** A continuation of PSYC 411 that will emphasize the use and interpretation of instruments for measuring attitudes, interests and related aspects of personality. Instruments studied will include paper-pencil inventories, projective devices and observational procedures. Prerequisites: PSYC 411 and PSYC 230, or PSYC 361. Spring.

**PSYC 517 SENSATION AND PERCEPTION (3)** A systematic investigation on the basic senses such as vision, audition, taste, smell, and touch will be undertaken. The organization of sensory input will also be emphasized. Both human and non-human data will be presented. Prerequisite: PSYC 261. Spring.

**PSYC 521 APPLICATIONS OF BEHAVIORAL PRINCIPLES TO FAMILY AND CLASSROOM ENVIRONMENTS (3)** Practical application of operant techniques to child management and family functioning. Course will deal with behavioral analysis, behavior modification programs and family contracting both at school and at home, with emphasis on learning basic technical skills. Prerequisite: PSYC 211. Fall, Spring.

**PSYC 524 SOCIAL PSYCHOLOGY (3)** The structure and function of groups. Recent advances in sociology, anthropology and psychiatry as related to psychology. Prerequisite: Six hours of PSYC. Fall & Spring.

**PSYC 527 INTRODUCTION TO INTERVIEWING TECHNIQUES I (3)** An introduction to interviewing with the examination of real interviews with children in difficulty. The theory and methods of delivery of helping services via the interview. Prerequisites: Minimum of two months interviewing experience and consent of instructor.

**PSYC 528 INTERVIEWING TECHNIQUES II (3)** This is a continuation of PSYC 427. The course explores more deeply the unique relationship of the interviewer to the client. There is practical experience with critiquing of interviews of students. Prerequisite: PSYC 527.

**PSYC 529 INTRODUCTION TO THE COUNSELING OF MINORITY GROUPS (3)** An introduction to the study of the counseling function with emphasis upon minority groups needs, counselor attitudes and techniques. Prerequisite: PSYC 101 and psychology major or minor planning to enter one of the helping professions or graduate student in Guidance and Counseling or consent of department coordinator.

**PSYC 530 PSYCHOLOGY OF INDIVIDUAL DIFFERENCES (3)** Individual differences in human traits and characteristics; methodology, basic principles, and major findings in research. Prerequisites: PSYC 101 and PSYC 111. Alternate Springs.

**PSYC 531 GROUP DYNAMICS (3)** Intensive study of group interactions with emphasis upon reciprocal group influence of behavior. Prerequisite: PSYC 325 or consent of instructor. Fall.

**PSYC 535 SUPERVISED FIELD EXPERIENCE (3-6)** Placement in a community service agency to familiarize the student with its current practices. Supervised client contact will be provided. May be repeated for a maximum of 12 credits but only 6 credits can apply to the major; the other 6 credits will be used as general electives. Prerequisites: 23 hours of psychology and consent of instructor.

**PSYC 539 THE INITIAL INTERVIEW (3)** Clinical observation and practicum experience. Focus on interviewer and interviewee dimensions and relationship with patients. Use of tapes, seminars and individual supervision. Prerequisite: PSYC 205, and admission to Clinical Concentration Program. Fall.

**PSYC 540 ENVIRONMENTAL PSYCHOLOGY (3)** The relationship between the physical and social environment and behavior, i.e., places, spaces, and people. How man/woman construes, interprets, comprehends, feels about the environment, and how the environment functions as a reflection of human needs and values. Topics include environmental design, crowding, privacy, human territoriality, personal space. Prerequisite: PSYC 101. Fall, Spring.

**PSYC 541 INFORMATION SERVICE IN COUNSELING AND GUIDANCE (3)** Educational and vocational resources. Evaluation, classification and use of much information. Prerequisite: PSYC 101.

**PSYC 542 ABNORMAL PSYCHOLOGY (3)** Disordered personal reactions to life. Organic and functional phenomena plus therapeutic techniques. Prerequisite: Nine hours PSYC including PSYC 203 or consent of instructor. Fall, Spring.

**PSYC 545 PEER COUNSELING (3)** A study of peer counseling functions with emphasis on training students in verbal and non-verbal communications, listening skills, values clarification, referral techniques, confidentiality, and decision-making skills. Includes research of problems, issues and trends. Prerequisite: PSYC 425 or Education majors.

**PSYC 547 SEX DIFFERENCES: PSYCHOLOGICAL PERSPECTIVES (3)** Sex role/personality development is examined from various perspectives: social, cultural, evolutionary, and biological. Changing conceptions with regard to women, their roles and self-concepts, are emphasized within the overall context of sex differences and similarities in behavior. Prerequisite: PSYC 203 or permission of instructor.

**PSYC 550 PERSONALITY (3)** Theoretical and practical approaches to the study of personality. Introduction to psycho-dynamics and to methods and materials of assessment. Prerequisite: Six hours PSYC. Fall, Spring.

**PSYC 551 INTRODUCTION TO THE EXCEPTIONAL CHILD (3)** Children with atypical, physical, mental, social and emotional development, including the physically handicapped, the mentally retarded, the gifted, and emotionally disturbed children. Prerequisite: PSYC 201 or PSYC 211. Fall.

**PSYC 553 ISSUES IN MENTAL HEALTH INTERVENTION (2)** Readings, lectures, and seminars relating to psychological emergencies and the modes of intervention during psychological crises. Prerequisite: PSYC 425, PSYC 454 concurrent, admission to Clinical Concentration Program.

**PSYC 560 ETHOLOGY AND COMPARATIVE PSYCHOLOGY (3)** A survey of the major behavioral adaptations in non-human and human species, within the framework of evolutionary theory, ethology, and experimental psychology. Three hours of lecture a week. Prerequisite: PSYC 261 or consent of instructor. Fall.

**PSYC 561 COGNITIVE PSYCHOLOGY (3)** This course will deal with the nature of the cognitive processes, an analysis of the organization of cognitive abilities, and problems in cognition. Theoretical viewpoints will be explored, including those of Piaget, J. P. Guilford, Ausubel, Lewin, Skinner. A comparison among theories will be made as they relate to the thinking processes. Prerequisite: PSYC 203, PSYC 211 or with consent of instructor. Spring.

**PSYC 562 LABORATORY IN ETHOLOGY AND COMPARATIVE PSYCHOLOGY (2)** This course is a laboratory experience to accompany Ethology and Comparative Psychology (PSYC 560). Students will be trained in basic observational and recording techniques used in studying behavior from a comparative-ethological vantagepoint. A supervised project will also be undertaken by students. Can be taken concurrently or subsequently to PSYC 560. Prerequisite: May be taken concurrently with or subsequent to PSYC 460, or consent of instructor. Spring.

**PSYC 565 PHYSIOLOGICAL PSYCHOLOGY (3)** This course is concerned with an introduction to the physiological bases of behavior. The topics to be considered are basic neuroanatomy and neurophysiology, sensory and motor systems, motivational systems, and "higher order" behavioral systems. Three hours of lecture per week. Prerequisite: PSYC 261 or consent of instructor. Fall, Spring.

**PSYC 566 LABORATORY IN PHYSIOLOGICAL PSYCHOLOGY (2)** This course is intended to expand upon PSYC 465. Students

will receive experience in dissection of the sheep brain, small animal surgical and histological techniques, and small animal behavioral testing techniques. This course may be taken either concurrently with or subsequently to PSYC 565. Spring. Prerequisite: May be taken concurrently with or subsequent to PSYC 565, or consent of instructor.

**PSYC 567 ADULT PSYCHOLOGY (3)** A study of adult behavior between the ages of 18 and 60. The developmental stages of young adulthood, adulthood, and middle age will be discussed along with topics pertinent to each of the levels such as leaving and becoming emancipated from the family; the transition and adjustment to marriage and work; and bridging the gap between ideals and actual fulfillment. Prerequisite: PSYC 203.

**PSYC 570-579 SPECIAL TOPICS (1-3)** Survey and critical evaluation of modern literature pertaining to selected problems in Psychology. Prerequisite: Consent of instructor.

**PSYC 580 SYSTEMS OF PSYCHOLOGY (3)** Schools of psychology with their theoretical and methodological approaches. Prerequisites: At least a junior psychology major and consent. Alternate Springs.

**PSYC 581 READINGS IN PSYCHOLOGY (1-2)** A survey of relevant research literature under the guidance of a staff member who will direct the students' research. This course may be taken a maximum of 2 times for major credit purposes. Prerequisite: PSYC 261 or consent of instructor. Fall, Spring.

**PSYC 585 EXPERIMENTAL DESIGN (4)** Design and analysis—Analysis of variance (completely randomized design, repeated measurement designs, etc.), multiple comparisons, non-parametrics, general problems related to sampling, experimental effects, etc. Prerequisite: PSYC 111 or consent of instructor. Fall, Spring.

**PSYC 591 INDEPENDENT INVESTIGATION IN PSYCHOLOGY (3)** An opportunity for especially qualified students to undertake research problems according to their interest and training under the direction of a staff member. May be repeated for a maximum of 12 credits but only 6 credits can apply to the major; the other 6 credits will be used as general electives. Prerequisite: PSYC 261 and consent of instructor. Fall, Spring.

**PSYC 601 SEXUAL COUNSELING (3)** Human sexual relationships, with emphasis on social and sexual problems and new treatment techniques for sexual dysfunction. Prerequisite: Psychology, health science, or nursing major or consent of the department.

**PSYC 603 HUMAN LEARNING (3)** Aspects of learning applicable specifically to human behavior including topics such as acquisition, memory, problem solving, creativity and language. Topics discussed within a framework of historic and current theoretical research perspectives. Prerequisite: 21 credits in psychology.

**PSYC 605 COUNSELING TECHNIQUES (3)** Counseling skills essential in facilitating client self awareness. Training the student in practical skills through demonstration and role playing with feedback in behavioral performance.

**PSYC 607 APPLIED THEORIES OF COUNSELING (3)** Those counseling theorists whose applied methodology has been successful in the treatment of various client population. Techniques and application of methodologies in field settings.

**PSYC 609 COUNSELING PSYCHOLOGY—PRE-PRACTICUM (3)** Ethics, issues, and history of counseling psychology. Counseling with children and adults, various points of view, techniques for introducing therapeutic movement, and the essentials necessary for effective counseling. Prerequisite: Must be a psychology major planning to enter one of the helping professions or a graduate student in counseling, or have consent of the counseling program coordinator.

**PSYC 611 DEVELOPMENTAL PSYCHOLOGY (3)** Psychological structures and functions in human development. Theoretical and research approaches. Prerequisite: PSYC 201 or equivalent.

**PSYC 613 COMMUNITY MENTAL HEALTH COUNSELING (3)** Types of community health services and the relationships between those services; the responsibility of counseling in a mental health center; and the area of mental health consultant. Emphasis will be given to the application of counseling skills in a mental health setting (pre-practicum). Prerequisite: Graduate standing in counseling.

**PSYC 615 INTRODUCTION TO RESEARCH METHODS IN COUNSELING (3)** Principal methods of behavioral research emphasizing concepts rather than statistical procedures. Preparation of counselors to evaluate methods, designs, and results of counseling research. Prerequisite: Graduate standing in counseling.

**PSYC 620 PSYCHODIAGNOSTICS I: INTELLIGENCE (3)** Construction—standardization, administration, scoring and interpretation of the Weschler and Stanford-Binet scales, Bender Gestalt, Human Figure Drawings, and appropriate achievement tests. Prerequisites: Clinical psychology and consent of coordinator.

**PSYC 621 ADVANCED EDUCATIONAL PSYCHOLOGY (3)** Survey of current research in child psychology, learning, mental hygiene, and tests and measurements. Emphasis on critical analysis of studies. Prerequisite: PSYC 611

**PSYC 625 BEHAVIORAL TECHNIQUES (3)** Application of behavioral strategies to children in home and school settings. Consultation stressed. Prerequisites: Matriculation in graduate program in Psychology, consent of coordinator of School Psychology.

**PSYC 631 ADVANCED ABNORMAL PSYCHOLOGY (3)** Current and historical perspectives of psychopathology. Emphasis on varied approaches in contemporary schools. Prerequisite: PSYC 542.

**PSYC 635 INTRODUCTION TO CLINICAL HYPNOSIS (3)** Ethics, issues, history and uses of clinical hypnosis. Emphasis on performing basic hypnotic induction and deepening techniques.

**PSYC 637 COUNSELING STRATEGIES FOR DRUG AND ALCOHOL ABUSE (3)** Understanding the basic issues of substance abuse, referrals, clinical assessments and developing counseling strategies for successful intervention. Prerequisites: PSYC 605 and PSYC 607.

**PSYC 640 MENTAL HYGIENE IN EDUCATION (3)** Principles of mental hygiene and their application to the educational setting. Emphasis on personality development. Prerequisite: PSYC 611.

**PSYC 643 INTRODUCTION TO SCHOOL PSYCHOLOGY (1)** Ethics and issues in school psychology. Prerequisites: Graduate standing in school psychology and consent of coordinator.

**PSYC 645 COPING STRATEGIES IN THE CLASSROOM (3)** Application of psychological principles and concepts as they relate directly to the classroom. Development of awareness of teacher impact on the classroom members with specific emphasis on individual differences. Open to teachers, counselors and administrators. Prerequisite: PSYC 651.

**PSYC 650 DIAGNOSTIC TECHNIQUES IN EDUCATION (3)** Use of standardized and teacher-constructed instruments for diagnostic and instructional purposes. Prerequisite: PSYC 611, PSYC 511 or equivalent.

**PSYC 651 TECHNIQUES OF INTERVENTION (3)** Group and individual intervention strategies. Prerequisites: Matriculation in school, clinical or counseling psychology and consent of coordinator.

**PSYC 653 RESEARCH ISSUES IN SCHOOL/CLINICAL PSYCHOLOGY (3)** Analysis of major issues in school and/or clinical psychology. Prerequisites: PSYC 111, graduate standing in school or clinical psychology and consent of coordinator.

**PSYC 655 LEARNING DISABILITIES I: ASSESSMENT (3)** Theoretical issues and assessment of learning disabilities in school aged children. Prerequisites: Matriculation in school psychology track, and consent of coordinator.

**PSYC 657 LEARNING DISABILITIES II: REMEDIATION (3)** Intervention strategies and consultation in the schools. Prerequisites: Matriculation in school psychology track, PSYC 655.

**PSYC 661 FOUNDATIONS OF REHABILITATION COUNSELING (3)** Development of rehabilitation programs; their legal basis and historical background. Roles of medical, psychological, educational and community resources in the rehabilitation program included. Client eligibility, determination, and counselor responsibilities will be reviewed. Prerequisite: PSYC 101

**PSYC 663 SYSTEMS OF PSYCHOTHERAPY (3)** Prominent schools of psychotherapy, emphasis on the psychotherapeutic aspect of education and clinical settings. Prerequisites: PSYC 350, PSYC 361, PSYC 230, PSYC 631.

**PSYC 665 PSYCHOTHERAPY AND BEHAVIOR CHANGE I (3)** First of two semester sequence. Readings, lectures and actual experience related to theories and techniques currently used for behavior change. Individual psychotherapy, family therapy, transactional analysis, rational emotive therapy and behavior modification reviewed. May be taken without Psychotherapy and Behavior Change II. Prerequisites: Graduate standing in school or clinical psychology tracks and consent of coordinator.

**PSYC 666 PSYCHOTHERAPY AND BEHAVIOR CHANGE II (3)** Second of two semester sequence. Continued analysis of psychotherapy approaches through readings, lectures and experience. Prerequisites: PSYC 665 and consent of coordinator.

**PSYC 667 PSYCHO-SOCIAL ASPECTS OF DISABILITY (3)** Psychosocial milieu on the disabled person's self-concept, approaches to facilitating autonomy and self-actualizing goals emphasized. Prerequisite: Graduate standing in psychology or consent of instructor.

**PSYC 668 MEDICAL ASPECTS OF DISABILITY (3)** Structure and function of bodily systems and implications of physical disabilities in coping with the problems of daily living. Prerequisite: PSYC 101.

**PSYC 669 THE PSYCHOLOGICAL ASPECTS OF HEARING LOSS (3)** Psychological problems unique to the deaf/hearing disabled, with emphasis on communication, relationship, evaluation and vocational issues. Prerequisite: Graduate Standing.

**PSYC 670 REFERRAL RESOURCES FOR THE SCHOOL-AGE CHILD (3)** Referral services for emotional, vocational and behavioral adaptation of children in need of services beyond the classroom situation. Information about specialized facilities, both school- and community-sponsored. Prerequisite: PSYC 611.

**PSYC 673 ADVANCED EXPERIMENTAL PSYCHOLOGY I (4)** Experimentation in the field of human behavior. Prerequisites: PSYC 111, PSYC 264 or equivalent; consent of department.

**PSYC 674 ADVANCED EXPERIMENTAL PSYCHOLOGY II (4)** Major concepts, processes and methods in the field of animal behavior, with primary emphasis on ethology and comparative psychology. Prerequisites: PSYC 111, PSYC 261 or equivalent; consent of department.

**PSYC 675 PROSEMINAR I (3)** Selected issues and concepts in learning, motivation, physiological psychology and ethology-comparative psychology. Prerequisites: PSYC 261 or equivalent.

**PSYC 676 PROSEMINAR II (3)** Selected issues and concepts in social, developmental, industrial, personality and abnormal psychology. Prerequisite: PSYC 261 or equivalent.

**PSYC 677 LEARNING (3)** Overview of current issues in learning. Emphasis on the critical analysis and reporting of primary literature. Prerequisite: PSYC 305 or consent of instructor.

**PSYC 679 SPECIAL TOPICS SEMINAR (1-3)** Major socio-historical and philosophical antecedents to the development of modern psychology. Analysis of influential systems such as structuralism, functionalism, Gestalt, behaviorism and psychoanalysis.

**PSYC 681 ADVANCED HISTORY AND SYSTEMS OF PSYCHOLOGY (3)** Ancient and modern psychological history drawing heavily from philosophy and physiology and psychology in various countries. Analysis of systems include a study of functionalism, structuralism, behaviorism, Gestalt and psychoanalysis.

**PSYC 684 COLLEGE TEACHING SEMINAR (3)** Materials and procedures for producing successful students in lower level courses.

**PSYC 685 COLLEGE TEACHING PRACTICUM (3)** Supervised teaching of introductory psychology. Prerequisite: PSYC 684

**PSYC 687 ADVANCED EXPERIMENTAL DESIGN I (3)** Treatment of descriptive and inferential statistical methods and design considerations. Prerequisite: PSYC 121 or equivalent.

**PSYC 688 ADVANCED EXPERIMENTAL DESIGN II (3)** Treatment of advanced analysis of variance designs and related techniques. Prerequisite: PSYC 687 or equivalent.

**PSYC 689 MULTIVARIATE METHODS (3)** Multivariate statistical methods useful in behavioral scientific research. Topics: correlation, regression, factor analysis, discriminant analysis. Prerequisite: PSYC 687.

**PSYC 693 INTERNSHIP IN COUNSELING (3)** Intensive experience within a counseling facility involving exposure to the many facets of a mental health professional, including administrative and record-keeping duties; individual and group counseling observations and experiences; referral resources, etc. Prerequisite: Consent of instructor.

**PSYC 697 PRACTICUM IN CLINICAL PSYCHOLOGY (3)** Supervised experience in psychological interviewing, assessment, and psychotherapy. Practicum in which students will meet for individualized supervision with the practicum instructor. Prerequisites: PSYC 620, M.A. candidacy in clinical psychology and consent of coordinator.

**PSYC 703 PRE-SCHOOL ASSESSMENT (3)** Formal and informal assessment techniques including behavioral assessments and adaptive behavior scales. Prerequisites: Matriculation in school psychology track, consent of coordinator.

**PSYC 705 PRINCIPLES OF GUIDANCE (3)** Philosophy and a knowledge of the principles of guidance. Prerequisite: PSYC 611 or the equivalent.

**PSYC 706 INTRODUCTION TO CAREER DEVELOPMENT (3)** Designed to familiarize students with aspects of career development, to introduce them to a variety of relevant resources and media and to assist them in integrating this knowledge by planning a program of career development for a specific group. Prerequisite: Graduate standing.

**PSYC 707 INFORMATION SERVICE IN GUIDANCE & COUNSELING (3)** Educational and vocational opportunities and community referral sources; including evaluation, classification and use of such information in a guidance and counseling program. Prerequisite: PSYC 605.

**PSYC 708 MEDIA IN CAREER EDUCATION (3)** Production of videotapes, films, filmstrips, slides and audiotapes pertaining to the world of work. Workshop procedures are used to develop career education materials for use in a variety of employment settings. Prerequisite: PSYC 707.

**PSYC 711 ANALYSIS OF THE INDIVIDUAL (3)** The individual, emphasizing data in the areas of vocational, educational and personal adjustment. Prerequisites: PSYC 705 and PSYC 511 (PSYC 705 may be taken concurrently).

**PSYC 715 ADVANCED SEMINAR IN PSYCHOTHERAPY (3)** Counseling and therapy techniques used by counselors and other professional personnel working with children and adults. Prerequisite: PSYC 609.

**PSYC 717 THEORIES OF FAMILY COUNSELING (3)** Theoretical approaches and strategical methods of evaluating and counseling disturbed families. Prerequisite: PSYC 609.

**PSYC 718 TECHNIQUES OF FAMILY COUNSELING (3)** Identification of problems that cause families to deteriorate, diagnosis of those problems, and techniques that will help families work through their difficulties. Emphasis on development of skills essential to effective family counseling practice. Prerequisite: six graduate credits in counseling or equivalent.

**PSYC 719 COUNSELING THE ELDERLY (3)** Medical and psycho-social aspects of aging with emphasis on problems common to the elderly. Various counseling techniques and their effectiveness with the elderly are presented. Prerequisite: Graduate standing.

**PSYC 721 GROUP COUNSELING (3)** Theories, principles, and techniques of group counseling. Some additional topics to be covered are the role of the leader, problems of member selection, evaluation of group progress, and the ethics and training of group counselors. Prerequisite: PSYC 609.

**PSYC 723 GROUP COUNSELING PRACTICUM (3)** Supervised practical experience in leading a counseling group. Prerequisites: PSYC 621, consent of coordinator, and successful advancement to candidacy exam.

**PSYC 727 USE OF TESTS IN COUNSELING (3)** Practice in the use and analysis of techniques for understanding the individual with emphasis upon standardized procedures used in the public schools. Prerequisite: PSYC 511.

**PSYC 730 COUNSELING THE ELEMENTARY SCHOOL CHILD (3)** The dynamics of child behavior, techniques of assessing and counseling. Study of the family, school, and community structures and their effect on the child. Prerequisite: PSYC 609.

**PSYC 731 ADMINISTRATIVE AND CURRICULAR ASPECTS OF SCHOOL ENVIRONMENTS (3)** Theoretical and applied aspects of the functioning of school systems and the interface between psychology and the schools. Prerequisites: Matriculation in school psychology track, consent of coordinator.

**PSYC 733 ASSESSMENT AND TREATMENT OF EXCEPTIONAL CHILDREN (3)** Skill development in identification of and planning for the major exceptionailities in the schools. Stress on major diagnostic categories and relevant new techniques. Prerequisites: Matriculation in school psychology track, consent of coordinator.

**PSYC 745 PRACTICUM IN COUNSELING PSYCHOLOGY (6)** Supervised experience in educational, vocational and personal counseling. Must be taken in two separate semesters (3 credits per semester.) Prerequisite: Consent of coordinator.

**PSYC 752 INTERNSHIP IN SCHOOL/CLINICAL PSYCHOLOGY (3)** Each student must be a full-time student during the semester he/she enrolls in this course, typically the last semester of work. Student is placed in an internship in a school or clinic, depending upon his/her specific orientation. This course may be repeated up to a total of three times with the written consent of the coordinator. Prerequisite: MA candidate in school or clinical concentration.

**PSYC 761 PSYCHODIAGNOSTICS II: PERSONALITY EVALUATION (3)** Administration, scoring and interpretation of currently used projective techniques. Grade given upon completion of Psychodiagnostics III. Prerequisites: Matriculation school or clinical psychology and consent of coordinator.

**PSYC 763 PSYCHODIAGNOSTICS III: CONSULTATION (3)** Advanced interpretation and data transmission. Consultation based upon intellectual and projective data and adaptive behavior. Prerequisites: PSYC 691 and consent of coordinator.

**PSYC 765 PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3)** Theoretical and empirical bases underlying personality assessment. Introduction to methods and instruments used in clinical evaluation. Prerequisite: Matriculation in clinical psychology and consent of coordinator.

**PSYC 766 ADVANCED PERSONALITY ASSESSMENT IN CLINICAL PSYCHOLOGY (3)** Expand skill building process in administration, analysis, and report of personality assessment data with clinical populations. Prerequisites: PSYC 765 and consent of coordinator.

**PSYC 771 PRACTICUM IN PSYCHODIAGNOSTIC EVALUATION (3)** Field work under the supervision of a certified or licensed psychologist. Prerequisites: PSYC 761, consent of school psychology coordinator.

**PSYC 773 PRACTICUM IN INTERVENTION TECHNIQUES (3)** Field work under the supervision of a certified or licensed psychologist. Students must be available for clinic or school placement. Stress on techniques appropriate for the schools. Prerequisites: Matriculation in school psychology track, evidence of academic preparation in intervention techniques, consent of school psychology coordinator.

**PSYC 790 SEMINAR IN PROFESSIONAL PSYCHOLOGY (3)** Treatment of legal, ethical and professional issues in psychology. Course may be repeated for credit by students who took course prior to fall 1983. Prerequisite: Consent of instructor.

**PSYC 797 INTERNSHIP IN CLINICAL PSYCHOLOGY (3)** Supervised field experience in a community mental health center, state psychiatric hospital, or other public mental health facility with exposure to the duties of a master's level clinical psychologist including psychological assessment, psychotherapy and report writing. Prerequisites: PSYC 697 and consent of Clinical Psychology Coordinator.

**PSYC 898 THESIS (3 OR 6)**

**PSYC 899 THESIS CONTINUUM (1)**

## SAFETY AND DRIVER EDUCATION

### SAFETY AND DRIVER EDUCATION COURSES (DRED)

Safety and Driver Education Courses carry graduate credit but may not be applied toward a Master's degree.

**DRED 530 PRINCIPLES OF ACCIDENT PREVENTION (3)** Includes a survey of the history and philosophy of the safety education movement, need for safety education, aims and objectives, accident causation and prevention, and the role of education in eliminating environmental hazards and reducing avoidable human error.

**DRED 531 HIGHWAY TRANSPORTATION SYSTEM AND DRIVER TASK ANALYSIS (3)** History and philosophy of automobile and highway safety engineering, U.S. and International traffic controls, traffic laws and regulations, critical analysis of traffic accidents and causation, and attitude factors.

**DRED 545 CURRICULUM DEVELOPMENT IN DRIVER EDUCATION (3)** History of curriculum development in driver education; principles; philosophies; objectives; current practices, evaluation techniques; laboratory experience; and field study. Prerequisite: Six credits in approved Driver Education Courses or approval of Director.

## SCIENCE EDUCATION

### SCIENCE EDUCATION COURSES (SCED)

**SCIE 551 TEACHING SCIENCE IN EARLY CHILDHOOD (2)** The course is designed to familiarize the student with appropriate methods and materials in science for the young child. Emphasis will be on interdisciplinary approach. Prerequisite: 0823.341 or concurrently.

**SCIE 570-575 SEQUENTIAL SCIENCE MODULES FOR THE ELEMENTARY SCHOOL TEACHER I-VI (1, 2, or 3)** Three different modules of science instruction will be offered each semester for teachers of primary and intermediate grades. The course will emphasize instructional strategies in both the processes and content of the science. A student may elect to take 1, 2, or all 3 modules for 1, 2, or 3 credit hours respectively. All students must attend

the first class meeting for course orientation. Thereafter, each module will meet once a week for four weeks. Each meeting will consist of approximately four hours laboratory work. Prerequisite: Teaching experience in the elementary schools.

#### **SCIE 576 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL**

(3) Significance of science for the elementary school child; its contribution toward his development; criteria for selecting science experiences for children. Open only to students in the student teaching block.

#### **SCIE 580 TEACHING SCIENCE IN THE SECONDARY SCHOOL**

(3) Selection of appropriate content, method and evaluation techniques, analysis of textbooks and resource materials. Must be taken the semester prior to student teaching.

**SCIE 588 AEROSPACE EDUCATION—WORKSHOP** (3) In cooperation with CAP, USAF, NASA. A fund of general knowledge about aviation and space exploration. Teaching materials, resources, and field experiences. Usually a weekend at Florida's Cape Kennedy Space Center and other day-long tours TBA. For K-12 teachers, supervisors, administrators, and students of teaching. Lab fee \$15.00 (including travel). Three weeks, summers only.

#### **SCIE 670-679 SPECIAL TOPICS IN SCIENCE EDUCATION**

(14) A selected topic in science education Prerequisite: Varies with the topic

#### **SCIE 685 SEMINAR IN ELEMENTARY SCHOOL SCIENCE** (3)

Practices and trends in organizing, teaching, and improving programs in elementary school science. Prerequisite: Elementary teaching.

**SCED 570-589 SPECIAL TOPICS IN SECONDARY EDUCATION:** (Topic to be named) (1-3) In-depth study of a selected topic in Secondary or Adult Education. The specific requirements and prerequisites will vary with each topic and will be designated by the department each time a topic is scheduled. Graduate credit only with approval of the graduate coordinator. Each topic may be taken as a separate course.

#### **SCED 594 TRAVEL AND STUDY IN SECONDARY EDUCATION**

(1-6) Study abroad of educational facilities, programs or practices, or selected projects in education topics. By special arrangement with program chair and sponsoring instructors. Consent of graduate program coordinator required for graduate degree credit.

#### **SCED 595 INDEPENDENT STUDY IN EDUCATION: SECONDARY** (1-4)

An opportunity for especially qualified students to undertake research problems or study projects relevant to their interest and training under the direction of a staff member. Prerequisite: Consent of Chair of Secondary Education. Graduate credit by consent of Graduate Program Coordinator only.

#### **SCED 596 DIRECTED READING IN SECONDARY EDUCATION**

(1-4) Independent reading in selected areas of Secondary Education in order to provide for the individual a comprehensive coverage or to meet special needs. By invitation of the department to qualified students. Prerequisite: Obtain consent of chair of Secondary Education. Graduate credit by consent of Graduate Program Coordinator only.

#### **SCED 603 TEACHING WRITING ACROSS THE CURRICULUM** (3)

The process of writing, given for specific school systems by the Maryland Writing Project. Small group and assessment techniques included. Prerequisites: Bachelor's degree; teaching experience.

#### **SCED 605 THEORY, RESEARCH & PRACTICE IN TEACHING**

(6) The teaching of writing skills, K-University and across disciplines; training of participants to become Maryland Writing Project teacher consultants. Prerequisites: Bachelor's degree; teaching experience; consent of Maryland Writing Project Director.

#### **SCED 611 LEARNING DISABILITIES OF ADOLESCENTS AND**

**ADULTS** (3) Educational and psychological manifestations of learning disabilities; types of disabilities; effect on learning; diagnosis and remediation. Prerequisite: teaching experience, SCED 637 or consent.

#### **SCED 621 INDIVIDUALIZING LEARNING IN THE SECONDARY**

**SCHOOL** (3) Philosophical and psychological bases; goal development; organizational patterns; assessment; teaching strategies in content areas; grading and evaluation; programming for classroom, departmental and school levels. Prerequisite: Teaching experience.

#### **SCED 623 THE MIDDLE SCHOOL** (3) Functions and characteristics; historical development; philosophical and psychological bases;

nature of transescent youth; curriculum and organizational patterns. Prerequisite: ELED 361 or ELED 462, or SCED 341.

#### **SCED 625 TEACHING IN THE MIDDLE SCHOOL** (3) Goals and

objectives; planning; instructional procedures and materials; evaluation techniques; special problems of instructing preadolescents. Prerequisite: Teaching experience.

#### **SCED 627 HUMAN RESOURCE DEVELOPMENT** (3) Teaching/

learning dimensions of adults in non-traditional settings — business, industry, government and the non-profit sector. Prerequisite: Teaching experience or course work or experience in personnel.

#### **SCED 631 THE COMMUNITY COLLEGE** (3) Historical develop-

ment; purposes and goals; curriculum evaluation; finance; accreditation, and trends; state and national patterns; current student needs. Prerequisite: Consent of instructor.

#### **SCED 633 CURRICULUM AND INSTRUCTION IN THE COM-**

**MUNITY COLLEGE** (3) Educational programs; curricula; instructional techniques; evaluative procedures; community involvement and societal expectations; concerns and trends affecting programs;

## **SECONDARY EDUCATION**

Chairperson: James Lawlor

Graduate Departmental Coordinator: Secondary Education

Program: Margaret Kiley

#### **SECONDARY EDUCATION COURSES (SCED)**

**SCED 557 METHODS OF TEACHING ENGLISH AS A SECOND LANGUAGE** (3) Teaching teachers methods of teaching English as a second language. Attention is given to the use of visuals, contrastive analysis, drill techniques, and other methods and resources. Prerequisite: Teaching experience or consent of instructor.

**SCED 558 WRITING AS A LEARNING TOOL IN THE SECONDARY SCHOOL** (3) Strategies for using writing to learn content in all disciplines; examination of the writing process —diagnosis, prewriting, drafting, revision, evaluation, and publication. Prerequisite: SCED 341 or SCED 319 or consent of instructor.

**SCED 560 TEACHING READING IN THE SECONDARY SCHOOL** (3) General developmental reading skills; identification, diagnosis and remediation of reading problems; comprehension, vocabulary building, work-study skills. (G) Prerequisites: SCED 341 or concurrently; written permission, Chair, Department of Secondary Education. (Written permission not required of part-time evening students.)

**SCED 561 TEACHING READING IN THE SECONDARY CONTENT AREAS** (3) Teaching reading study skills leading to reading efficiency and problem solving associated with specific subject matter content. Prerequisite: SCED 460.

**SCED 563 DEVELOPMENTAL READING FOR THE EARLY ADOLESCENT** (3) Methods of designing and teaching developmental reading programs for the middle or junior high school student. Attention to the following: providing for individual differences, teaching students to read critically, developing and extending reading interests. Prerequisite: SCED 460 or equivalent reading methods course.

objectives as related to institutional goals. Prerequisite: SCED 631 or equivalent.

**SCED 635 DISCIPLINE AND CLASSROOM MANAGEMENT IN SECONDARY SCHOOLS (3)** Theories of control; procedures and routines for efficient management; problems in urban and suburban teaching. Prerequisite: Teaching experience or completion of student teaching.

**SCED 637 MAINSTREAMING FOR THE CLASSROOM TEACHER (3)** Background and legal bases; programs; methods and materials for special needs children; emphasis on the regular classroom situation. Prerequisite: Student teaching or teaching experience or consent of instructor.

**SCED 643 THE ADMINISTRATION OF THE SECONDARY SCHOOL (3)** Principles and practices; administrator's roles and responsibilities; human relations and personnel management of the school unit and curriculum. Prerequisites: Three years teaching experience, teaching certification, and nine graduate credits in education.

**SCED 647 THE TEACHING PROCESS: SECONDARY EDUCATION (3)** Theory and research on systems for analyzing teacher behavior; models of teaching for achieving cognitive, social, and personal learning objectives; and guidance and nature of the transscents; community involvement; evaluation. Prerequisite: Teaching experience.

**SCED 649 TEACHING GIFTED STUDENTS IN THE SECONDARY SCHOOL (3)** Characteristics of gifted adolescents; role of the gifted in society; educational programs, identification procedures, administrative arrangements, curriculum; and methodology. Prerequisite: Consent of instructor.

**SCED 651 TECHNIQUES FOR TEACHING SPECIAL NEEDS ADOLESCENTS AND ADULTS (3)** Assessment, diagnostic and remedial strategies, motivational devices as well as techniques for developing and maintaining a positive self-concept in adolescents and adults of below-average mental ability as defined under PL 94-142. Prerequisites: Teaching experience, student teaching, or consent of instructor.

**SCED 670-674 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3)** In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the Department. Prerequisite: Consent of graduate coordinator.

**SCED 683 SEMINAR IN SECONDARY SUPERVISION (3)** Past, current and emerging roles of the supervisor; theories and practices. Prerequisite: Nine graduate credits in education.

**SCED 695 INDEPENDENT STUDY IN EDUCATION: SECONDARY (1-4)** Independent study in selected areas of secondary education. Prerequisites: Graduate standing and consent of graduate coordinator.

**SCED 696 DIRECTED READING IN SECONDARY EDUCATION (1-4)** Independent reading in selected areas of secondary education. Prerequisites: Graduate standing and consent of graduate coordinator.

**SCED 731 FIELD EXPERIENCES IN ADOLESCENT AND ADULT LEARNING DISABILITIES (3)** Analysis of learning problems of selected secondary school pupils and adults who are learning disabled. Teacher assessment, diagnosis, design of remedial activities, evaluation strategies and practicum report. Prerequisites: one course in learning disabilities, mainstreaming or permission of instructor.

**SCED 741 CURRICULUM DEVELOPMENT IN THE SECONDARY SCHOOL (3)** Principles and practices; significant historical and contemporary influences; objective, content, and evaluation; trends; teachers as curriculum developers and implementors. Prerequisite: Consent of instructor.

**SCED 751 SEMINAR IN MIDDLE SCHOOL CURRICULUM (3)** Curriculum designs and programs; organization for instruction; teacher preparation programs; guidance and nature of the transscents; community involvement; evaluation. Prerequisite: Course on the middle school area or middle school teaching experience.

**SCED 753 SEMINAR IN SECONDARY SCHOOL CURRICULUM (3)** Theories, research, and evaluation; analysis of present programs; rationale for program development and change. Prerequisite: Graduate course in curriculum.

**SCED 770-774 SPECIAL TOPICS IN SECONDARY EDUCATION (1-3)** In-depth study of a selected topic. Specific requirements and prerequisites vary as designated by the department. Prerequisite: Consent of graduate instructor.

**SCED 779 SEMINAR IN SECONDARY SCHOOL SOCIAL STUDIES (3)** Current research, trends, practices, issues, content, materials, and problems. Prerequisite: Consent of instructor or prior teaching experience in social studies.

**SCED 781 SEMINAR IN SECONDARY AND ADULT EDUCATION (3)** Investigation of selected aspects of secondary and adult education. Prerequisites: 24 hours of graduate work, including EDUC 761.

**SCED 898 MASTER'S THESIS IN SECONDARY EDUCATION (3)**

**SCED 899 THESIS CONTINUUM (1)**

## SOCIOLOGY

Chairperson. Irwin Goldberg

### SOCIOLOGY COURSES (SOCI)

**SOCI 511 INDIVIDUAL AND SOCIETY (3)** A social psychological approach to the inter-relationships of the individual and his/her social and cultural environment; behavioral characteristics resulting from social experience. Prerequisite: SOCI 101.

**SOCI 515 COMMUNICATIONS AND SOCIAL ORDER (3)** Role of communications in social control; coercion, manipulation and enlightenment in society through primary and secondary communication. Prerequisite: SOCI 101.

**SOCI 522 SOCIOLOGY OF WAR AND PEACE (3)** A broad ranging examination of a variety of issues related to war and peace from a sociological perspective . . . the nature and causes of war, behavior in battle, effects of war on society, mechanisms of securing peace, the military as an organization, the relationship between armed forces and society. Prerequisite: SOCI 101.

**SOCI 523 SOCIAL CHANGE (3)** A sociological analysis of the sources, processes and consequences of social change. Prerequisite: SOCI 101.

**SOCI 525 COLLECTIVE BEHAVIOR (3)** Study of unorganized and organized groups and their impact on society: crowds, mobs, riots and other processes of disruptive and constructive change. Prerequisite: SOCI 101.

**SOCI 527 URBAN SOCIOLOGY (3)** Survey of the theoretical and sociological conceptualizations of modern western industrial cities. Prerequisite: SOCI 101.

**SOCI 529 DEMOGRAPHY (3)** Social, economic, and political problems related to changes, distribution and movement population; analysis of contemporary population trends in the U.S. and the world. Prerequisite: SOCI 101.

**SOCI 531 ORGANIZATIONS (3)** Structure and functioning of large scale organizations; formal and informal aspects of bureaucracies in business, government, politics, education and other institutional spheres of society. Prerequisite: SOCI 101.

**SOCI 532 SOCIOLOGY OF OCCUPATIONS AND PROFESSIONS (3)** Sociological literature on career choice and training patterns of occupational success and failure; professionalization process as it affects all occupations, role conflicts, regulation of behavior by the occupation and profession itself. Prerequisite: SOCI 101.

**SOCI 533 POLITICAL SOCIOLOGY (3)** Contemporary relevance of the fundamental ideas regarding the relationship of the social and political systems; the significance of social and political democratization; class struggles and revolution; the influence of government bureaucracy. Prerequisite: SOCI 101.

**SOCI 534 INDUSTRIAL SOCIOLOGY (3)** Sociological analysis of corporate and labor organization: internal organization; relationship to each other; impact on the workers in them; relationship to government and the total society. Treats issues such as changing managerial techniques, worker discontent and conditions for organizational and technological innovation. Prerequisite: SOCI 101.

**SOCI 535 MEDICAL SOCIOLOGY (3)** A study of social and cultural perspectives on illness; demographic trends; the health professions; institutions for the delivery of health care services. Prerequisite: SOCI 101.

**SOCI 539 COMMUNITY ORGANIZATION (3)** The organization of the community as a vehicle for identifying and meeting human needs; processes and techniques of community planning and development, traditional and contemporary. Prerequisite: SOCI 101.

**SOCI 541 CLASS, STATUS AND POWER (3)** An examination of major theories and significant research on socially structured inequality in modern and traditional societies. Prerequisite: SOCI 101.

**SOCI 543 MINORITY GROUPS (3)** An examination of inter-group life as an aspect of society; conflicts between races, ethnic groups, and minorities; prejudice, segregation and integration. Prerequisite: SOCI 101.

**SOCI 550 SOCIOLOGY OF AGING (3)** Examination of social factors in aging from the viewpoint of the individual, the group and society; socialization and alienation; demographic aspects of aging; societal definitions, norms, values, dilemmas, and responses to the aging; evaluation of research in social gerontology. Prerequisite: SOCI 101.

**SOCI 551 SOCIAL DEVIANCE (3)** Deviance as an aspect of social living; the problem of understanding conformity and deviance; identification of deviants; society's response to deviant behavior. Prerequisite: SOCI 101.

**SOCI 553 CRIMINOLOGY (3)** The nature of crime; factors underlying criminal behavior; police, courts, law, and correctional institutions. Prerequisite: SOCI 101.

**SOCI 554 INTRODUCTION TO CRIMINAL JUSTICE (3)** The history, the present structure, the functions and the contemporary problems of the police, prosecution, courts, corrections, probation and parole. In addition, a brief introduction to law as an element of social control will be given. Prerequisite: SOCI 101.

**SOCI 555 JUVENILE DELINQUENCY (3)** A study of delinquency; the process of socialization and delinquent behavior in society; prevention and treatment of delinquency. Prerequisite: SOCI 101.

**SOCI 556 CORRECTIONS IN AMERICA (3)** The analysis of agencies and programs designed for the custody and supervision of individuals convicted of crimes. The primary focus will be on adult institutions and community corrections. Prerequisite: SOCI 353 or SOCI 354 or SOCI 355.

**SOCI 557 SOCIAL WELFARE (3)** Sociological analysis of social welfare institutions and the functions they perform within modern societies. Prerequisite: SOCI 101.

**SOCI 558 SOCIOLOGY OF DEATH, DYING AND BEREAVEMENT (3)** Examination of present social considerations on death including demographic, attitudinal and ritualistic variables; death education through the life cycle; structure of the grief process; impact of terminal illness on the patient and the family; ethical issues surrounding euthanasia and suicide. Prerequisite: SOCI 101.

**SOCI 559 SOCIAL GERONTOLOGY (3)** The study of the life cycle and the social significance of aging as well as the contemporary issues in social gerontology. Prerequisite: SOCI 101.

**SOCI 560-569 TOPICS IN SOCIOLOGY (3)** An examination of current topics in sociology designed for non-majors as well as majors. The content of the course will depend upon mutual faculty and student interest. Prerequisite: SOCI 101.

**SOCI 570-579 SPECIAL TOPICS IN SOCIOLOGY (3)** An examination of current topics in sociology designed for junior and senior majors. The content of the course will depend upon mutual faculty and student interest. Prerequisites: SOCI 101 and six additional hours of Sociology.

**SOCI 581 SOCIOLOGICAL THEORY (3)** Major systems of sociological theory; the works, assumptions, and implications of major European and American schools. Prerequisites: Junior standing; SOCI 101; nine additional hours of Sociology.

**SOCI 582 RESEARCH METHODS (3)** A consideration of methodology of sociological research; the various steps in conducting research projects, from statement of the problem to final analysis of data. Prerequisites: SOCI 101; nine additional hours of SOCI; either PSYC 111 or MATH 231.

**SOCI 585 SEMINAR IN SOCIOLOGY (3)** Exploring and analyzing major areas of sociology. For senior students with a major in sociology. Prerequisite: SOCI 381 and consent of instructor.

**SOCI 591-592 PRACTICUM IN SOCIOLOGY I, II (3, 3)** Supervised experience in work setting which facilitates understanding of roles and relationships relevant to sociological inquiry and application of sociological knowledge. Students may elect to take one semester for 3 credits (591) or two semesters for 3 credits each (591-592), in one agency both semesters or in a different agency each semester. No more than three credits may be earned in a semester save with consent of the chair which will be granted only when agency requirements and student needs make it appropriate. Prerequisite: SOCI major; junior standing and consent of practicum coordinator.

**SOCI 595 INDEPENDENT RESEARCH (3)** Supervised research and sociological investigation involving library and/or field experiences, and culminating in a written report. Prerequisites: SOCI 381 and SOCI 391 and consent of instructor.

## SPANISH

Chairperson: Jorge A. Giro

Graduate Departmental Coordinator: Foreign Languages; Jorge Giro

### SPANISH COURSES (SPAN)

**SPAN 501 SPANISH PHONETICS (3)** The pronunciation of contemporary Spanish, drill in pronunciation. Prerequisite: SPAN 301-302 or equivalent.

**SPAN 502 SPANISH LINGUISTICS (3)** The linguistic structure of the Spanish language with an introduction to transformational grammar. Conducted in Spanish. Prerequisite: SPAN 301-302 or equivalent.

**SPAN 503 THE POETRY AND THEATER OF FEDERICO GARCIA LORCA (3)** Lorca's contributions to Spanish theater and poetry are analyzed in the context of the literary and social developments of pre-Civil War Spain. Prerequisite: SPAN 321-322 or equivalent. Conducted in Spanish.

**SPAN 511 SPANISH NOVEL I (3)** Emphasis will be given to Benito Perez Galdos and Pio Baroja. Conducted in Spanish. Prerequisites: SPAN 321-322. (Not open to those who completed SPAN 471.)

**SPAN 512 SPANISH NOVEL II (3)** Emphasis on such writers as Cela, Sender, Delibes and Goytisolo. Conducted in Spanish. Prerequisites: SPAN 321-322 or equivalent. (Not open to those who completed SPAN 472.)

**SPAN 517 THE GOLDEN AGE IN SPANISH LITERATURE I (3)** Principal attention to Cervantes, Tirso de Molina, Lope de Vega, and Ruiz de Alarcon; Gongora and his role. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 519 LITERATURE OF THE CUBAN REVOLUTION (3)** A study of the literature of the Cuban Revolution in its historical and ideological context. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 531 NINETEENTH CENTURY SPANISH LITERATURE (3)** The main literary movement of the century: neo-classicism, romanticism, realism, naturalism, and special emphasis on "costumbrismo." Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 536 NINETEENTH CENTURY SPANISH-AMERICAN LITERATURE II (3)** Principal works of the major writers from 1860 to 1900. Conducted in Spanish. Prerequisite: SPAN 321, SPAN 322 or equivalent.

**SPAN 537 ROMANTICISM IN SPANISH AMERICAN LITERATURE (3)** This course is designed to study the characteristics of romanticism in Spanish America through a study of the most representative works of the outstanding authors of this period. Prerequisite: SPAN 321-322 or equivalent or consent of instructor.

**SPAN 544 TWENTIETH CENTURY SPANISH-AMERICAN LITERATURE II (3)** The Contemporary Period. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 552 SPANISH POETRY II (3)** Emphasis on the poets of the generation of 1927; Pablo Neruda, and Vicente Aleixandre. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 562 SPANISH DRAMA II (3)** Contemporary playwrights such as Casona, Usigli, and Vallejo. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 570-579 SPECIAL TOPICS IN SPANISH (3)** Discussion of a central topic with changing emphasis from year to year. Prerequisite: SPAN 321-322 or the equivalent.

**SPAN 580 USE OF AUDIO-VISUAL TECHNIQUES IN MODERN LANGUAGE TEACHING (3)** Principles of design and components of communication will be presented. Demonstrations on basic materials production will be given. Students will be required to make materials and show how their materials can be used in foreign language instruction. Prerequisite: Teaching experience or consent of the department chair.

**SPAN 581 SPANISH SHORT STORY (3)** The short story in Spain and Spanish America with emphasis on twentieth century authors. Conducted in Spanish. Prerequisite: SPAN 321-322 or equivalent.

**SPAN 583 SPECIAL TOPICS IN FOREIGN LANGUAGE TEACHING (3)** Studies in the area of language teaching techniques with changing emphasis from year to year. Prerequisite: 0803.353 or equivalent.

**SPAN 591 DIRECTED READINGS IN SPANISH LITERATURE (1-3)** Reserved for superior students under the guidance of a departmental advisor. Conducted in Spanish. Prerequisites: At least three hours of literature study at the 400 level, consent of department chair.

**SPAN 592 DIRECTED READINGS IN SPANISH (1-3)** Similar to Spanish 491 with concentration on a different subject matter. Conducted in Spanish. Prerequisites: At least three hours of literature study at the 400 level, consent of department chair.

**SPAN 605 SPANISH STYLISTICS (3)** Intensive and detailed analysis of selected texts. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

**SPAN 636 POETRY AND DRAMA OF THE SPANISH GOLDEN AGE (3)** Graduate study of major writers of the Siglo de Oro. Conducted in Spanish. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

**SPAN 653 MIGUEL DE CERVANTES (3)** Don Quijote de la Mancha and the Novelas Ejemplares, reading and detailed analysis. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

**SPAN 670-679 SPECIAL TOPICS IN SPANISH LANGUAGE: LITERATURE AND CIVILIZATION (3)** Discussion of a central topic with changing emphasis from year to year. Prerequisite: Undergraduate degree in Spanish or consent of department chairperson.

**SPAN 685 SEMINAR IN MODERN LITERATURE (3)** Discussion of a figure or topic in modern Spanish or Spanish-American. Prerequisite: Undergraduate degree Spanish or consent of department chairperson.

## SPECIAL EDUCATION

### SPECIAL EDUCATION COURSES (SPED)

**SPED 541 SPECIAL NEEDS OF THE HANDICAPPED CHILD (3)** Characteristics of the following handicapping conditions as they may affect learning in a classroom setting: visual impairment, hearing impairment, speech and language disorders, emotional disturbance and physical and/or chronic medical conditions. Includes methods of tailoring educational programs to meet these conditions. Prerequisites: Six credits Psychology; six credits Early Childhood Education or Elementary Education. Fall.

**SPED 581 METHODS AND MATERIALS FOR TEACHING THE VISUALLY IMPAIRED (3)** Designed to examine recognized methods, materials, and programs for teaching children who are visually impaired. Offered in cooperation with Maryland School for the Blind. Prerequisites: SPED 483 and consent of instructor.

**SPED 583 BRAILLE READING AND WRITING (3)** Designed to meet needs of teachers who will be teaching the visually impaired to read and write braille. Consent of instructor.

**SPED 641 INTERVENTION TECHNIQUES—CHILDREN WITH SPECIAL NEEDS (3)** Theory; research; instructional and behavioral strategies; classroom management; crisis intervention; parent conferencing. Prerequisites: ECED 509; SPED 441 or equivalent; six credits in PSYC.

**SPED 670-679 SPECIAL TOPICS IN SPECIAL EDUCATION (1-3)** Studies in selected content areas tailored to student needs. Prerequisite: Vary according to area of concentration. Consent of coordinator of special education.

**SPED 741 INTERNSHIP—CHILDREN WITH SPECIAL NEEDS (3-6)** Placement in a special education facility or special education agency according to student interest and background. Prerequisites: six credits special education; twelve credits ECED; six credits PSYC and consent of coordinator of special education.

## SPEECH

### SPEECH COURSES (SPCH)

**SPCH 504 PERSUASION (3)** Theory and practice of linguistic and symbolic persuasion; applications of rhetorical principles in social sciences and formal and informal communication; analysis of rhetoric through discussion. Prerequisite: SPCH 131. Fall, Spring.

**SPCH 511 INDEPENDENT STUDY IN CHAMBER THEATRE (1-6)** Independent study in selected areas of Chamber Theatre through directed readings, projects, performances, papers or seminars. May be repeated for a maximum of 6 credits. Prerequisite: SPCH 320. Fall, Spring, Summer by request.

**SPCH 520 READERS THEATRE (3)** Oral interpretation of selections from dramatic literature and individual and group reading. Includes principles of selecting, cutting, and programming in literature. Prerequisite: SPCH 221 and consent of instructor. Spring.

**SPCH 523 ADVANCED ORAL INTERPRETATION OF LITERATURE (3)** Advanced theory and practice of oral interpretation with emphasis placed upon the relationship of the dramatic structure to the interpreter's performance. Prerequisite: SPCH 221 or consent of instructor.

**SPCH 593 INDEPENDENT STUDY IN READERS THEATRE (1-6)** Independent study in selected areas of Readers Theatre through directed readings, projects, papers or seminars. May be repeated for a maximum of 6 credits. Prerequisite: SPCH 320 or consent of instructor. Fall, Spring, Summer by request.

**SPCH 595 INDEPENDENT STUDY IN SPEECH COMMUNICATION (1-6)** Independent study in selected areas of speech communication through directed readings, projects, papers, or seminars. May be repeated for a maximum of 6 credits. No more than 6 credits of Independent Study and/or Practicum can be applied to the major and minor. Prerequisite: Consent of instructor.

## THEATRE ARTS

Chairperson: Maravene Loeschke

### THEATRE ARTS COURSES (THEA)

**THEA 580 PROBLEMS IN DESIGN (1-9)** Special problems in the area of design. May be repeated for a maximum of 9 credits. Prerequisites: THEA 201, THEA 241, THEA 251 and consent of instructor.

**THEA 585 ADVANCED THEATRE WORKSHOP FOR SECONDARY SCHOOL TEACHERS (6)** Open to graduate students and undergraduate students of junior and senior standing who have had courses in theatre and/or practical experience in theatre. May be taken for graduate or undergraduate credit. Students will work with high school students in theatre projects and will have opportunities to design and/or direct. Interested applicants should contact the Director of the Summer Theatre Workshop at the earliest opportunity, preferably June 1.

**THEA 593 PROBLEMS IN THEATRE (1-9)** Independent study of an academic or creative nature. For majors only. May be repeated for a maximum of 9 credits. Prerequisite: Approval of plan of study by instructor and director of theatre.

## WOMEN'S STUDIES

### WOMEN'S STUDIES COURSES (WMST)

**WMST 532 WOMEN'S CULTURE AND CREATIVITY (3)** Study of the historical conditions influencing women's creativity, the nature of women's aesthetic achievements, and the emergence of new female cultural and artistic traditions. Prerequisite: Six hours in art or literature.

**WMST 535 WOMEN, WORK AND FAMILY (3)** Women's work examined historically and cross-culturally from an interdisciplinary perspective. Women's work in traditional societies, effects of industrialization on women's work in contemporary societies. Prerequisite: three credits Social Science or History.

**WMST 591 DIRECTED READING IN WOMEN'S STUDIES (1-4)** Independent reading in women's studies with emphasis on interdisciplinary relationships. Topics selected by student in consultation with the instructor. May be repeated for a maximum of 6 credits. Prerequisites: 15 hours in inter-disciplinary or departmental Women's Studies courses; minimum 3.00 average in Women's Studies; consent of instructor and coordinator of Women's Studies.

**WMST 596 PRACTICUM IN WOMEN'S STUDIES (3 or 6)** Field placement for students in agencies or organizations working on projects which serve women. May be repeated for credit, but only three credits may be counted in the minimum forty-five credits required in the General Studies major. Prerequisites: Upper level or graduate standing; WMST 231; one other Women's Studies course and consent of instructor.

## WRITING

Chairperson: Dan L. Jones

Graduate Departmental Coordinator: Professional Writing Program:  
Dan L. Jones

### WRITING COURSES (WRIT)

**WRIT 512 HISTORY OF SCIENCE (3)** This course will present a general overview of the development of scientific knowledge from ancient to modern times. It will examine how our modern scientific worldview has been shaped by major periods of scientific development, particularly in the 16th and 17th centuries involving primarily astronomy and physics, and in the 19th and 20th including geology, biology, and psychology as well. Attention will be given to the relations between science and culture, religion, technology, and public policy. Not open to those who completed History of Science, PHYS 312.

**WRIT 611 RHETORIC (3)** Purpose, function and scope of rhetoric examined through a survey or rhetorical theory and practice from classical to contemporary times. Prerequisite: Admission to graduate program or consent of instructor.

**WRIT 613 THEORY OF EXPOSITION (3)** Exposition as an empirically based model for factual writing; conventions of diction, sentence form, paragraph, and organization; techniques of verifiability and probability; adaptability to different audiences, fields of knowledge, and public purposes; illogical and emotional distortions in expository writing. Prerequisite: Admission to graduate program or consent of instructor.

**WRIT 615 THEORY OF PROSE STYLE (3)** Theory of English prose style from the earliest times to the present. Prerequisite: Baccalaureate degree.

**WRIT 617 EDITING (3)** Study of fundamental editing theory and supervised practice in editing. Also practice in copyediting, exposure to electronic editing, overview of copyright and libel laws, and instruction in publication design and production.

**WRIT 619 COMMUNICATION IN THE PROFIT/NON-PROFIT SECTORS (3)** Communication process, with special emphasis on writing, within the profit/non-profit organization. Theories of organization. Management styles. Relationship of written messages to the function of climate of the profit/non-profit organization. Strategies of preparing written communication to meet internal and external needs. Prerequisite: Admission to a graduate degree program or consent of instructor.

**WRIT 629 WRITING FOR THE SCIENCES (3)** Theoretical and practical foundations of scientific writing, emphasizing its many contexts and rhetorical aims. Prerequisite: Good standing in graduate program or consent of instructor.

**WRIT 691 RESEARCH TECHNIQUES IN PROFESSIONAL WRITING (3)** Major sources of primary and secondary information; observation, interview, survey, controlled experiment, and library resources. Gathering, synthesizing and interpreting data using statistical analysis and computer programs. Prerequisite: Admission to a graduate degree program or consent of instructor.

**WRIT 701 BUSINESS WRITING (3)** Major forms of business and industrial writing, including correspondence, memoranda, short reports, and long reports. Emphasis on audience analysis and planning of written communication to meet audience needs. Prerequisites: Two 1594 600-level courses or consent of instructor.

**WRIT 702 TECHNICAL WRITING (3)** Instruction and practice in writing effective technical communications to meet audience needs. Prerequisite: 594.619.

**WRIT 703 DESIGN, LAYOUT, AND PRODUCTION (3)** A foundation for the writer wishing to master graphic communication. Students will create a portfolio of finished printing and tour studios, typesetters, and printing plants. Prerequisite: WRIT 517 or consent of instructor.

**WRIT 705 WRITING CREATIVE NON-FICTION (3)** Readings in creativity theory from literary, philosophical, and psychological perspectives, with sustained student practice in incorporating creativity into their own non-fiction writing. Prerequisites: WRIT 611 or WRIT 615 or consent of instructor.

**WRIT 711 MANAGING A PROFESSIONAL JOURNAL (3)** Instruction and practice in managing a professional journal from manuscript processing to published article. Controlling manuscript flow; working with editors, authors, reviewers, and publisher; journal production processes. Prerequisite: WRIT 517 or consent of instructor.

**WRIT 713 FREELANCE WRITING (3)** Freelance writing for magazines, newspapers, corporations, associations, and technical journals. Analyzing markets. Creating jobs. Understanding copyrights, contracts and agents. Prerequisite: WRIT 613 or consent of instructor.

**WRIT 730 WRITING REVIEWS (3)** Develop proficiency in writing and marketing reviews of books and other fine/performing arts presentations. Emphasize reviewing strategies and avenues for publication. Discuss student reviews, critical stances, role of critic, and aesthetics. Rhetorical analysis of published reviews.

**WRIT 731 CONSULTING I: IMPROVING CORPORATE WRITING (3)** Designing and offering programs to train technical writers in public and private organizations: practice in writing and editing corporate documents, such as executive summaries, handbooks, and manuals. Prerequisite: Any 600 level course or consent of instructor.

**WRIT 747 WRITING POETRY (3)** Poetry Writing Seminar. Analysis of student and published poetry, with attention to craft and readership. Overview of modern theories of poetics and poetry criticism. Survey of poetry markets and publishing procedures. Prerequisite: Any WRIT 600 level course or consent of instructor.

**WRIT 751 WRITING SHORT FICTION (3)** Short-fiction workshop. Analysis of student and published fiction with attention to plot, narrative technique, characterization, readership. Survey of short fiction markets and publishing procedures. Prerequisite: Any WRIT 600 level course or consent of instructor.

**WRIT 795 INDEPENDENT STUDY IN WRITING (3)** Individually supervised practice in one area of writing not engaged in regular curriculum, e.g., writing travel literature, comedy, critical commentary, children's literature, reviews, or the "how-to" book or article. Prerequisites: Six graduate writing courses with a 3.5 average, and availability of supervisory professor. Closed to thesis-option students. May be elected by others only once.



# ADMINISTRATION

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FREDERICK C. ARNOLD .....	Associate Dean of the Graduate School
MARGARET W. MASSON .....	Director of Graduate Admissions and Records

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WOLFGANG FUCHS .....	College of Liberal Arts.
JAMES C. HULL .....	College of Natural and Mathematical Sciences
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THELDON MEYERS .....	College of Fine Arts and Communication
DAN L. JONES .....	Graduate Program Coordinator
JOYCE REITZEL .....	Graduate Program Coordinator
TO BE APPOINTED .....	Graduate Student
TO BE APPOINTED .....	Graduate Student

## GRADUATE PROGRAM COORDINATORS

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JANE BATES .....	Art Education
ANTHONY DICESARE .....	Counseling Psychology
CHARLOTTE EXNER .....	Occupational Therapy
DONALD C. FORESTER .....	Biology
LARRY FROMAN .....	Human Resource Development
GEORGE A. GIRO .....	Foreign Languages
JOSEPH P. GUTKOSKA .....	Reading
KENNETH HADDOCK .....	Geography and Environmental Planning
DAN L. JONES .....	Professional Writing
MARGARET KILEY .....	Secondary Education
THEODORA KIMSEY .....	Early Childhood Education
PETER LEV .....	Mass Communication
SUSAN RADIUS .....	Health Science
JOYCE REITZEL .....	Speech-Language Pathology and Audiology
GARY W. ROSECRAWS .....	Instructional Technology
BARBARA R. SLATER .....	School Psychology
JOSEPH SUHORSKY .....	Elementary Education
THOMAS SUPENSKY .....	Master of Fine Arts
ELIZABETH ZOLTAN-FORD .....	Experimental Psychology

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DEAN ESSLINGER, <i>Faculty</i> Towson
MELANIE GOLDSMITH, <i>Student</i> Towson

# INSTRUCTIONAL FACULTY 1987—1988

The date in parenthesis following the listing of each person is the date of first appointment in the university.

- CLIFFORD D. ALPER**, Professor of Music  
B.M., University of Miami; M.M. University of Miami;  
Ph.D. University of Maryland (1960)
- JANET K. ANDERSON**, Associate Professor of Psychology  
B.A., University of Portland; M.A., New York University at Madrid;  
Ph.D., University of Maryland (1977)
- MAURITZ G. ANDERSON**, Professor of Biology  
B.A., University of Michigan; M.A., Indiana University;  
Ph.D. Virginia Polytechnic Institute and State University (1963)
- HERBERT D. ANDREWS**, Professor of History  
A.B., Bowdoin College; M.A., Ph.D., Northwestern University (1959)
- JAMES M. ANTHONY**, Assistant Professor of Music  
B.M., B.A., University of Arkansas; M.A., University of Michigan;  
Ph.D., University of Michigan (1971)
- JUDY M. ARMSTRONG**, Associate Professor of Psychology  
B.A., Brooklyn College; Ph.D., University of California at Berkeley (1974)
- EVELYN AVERY**, Associate Professor of English and Ethnic Studies  
B.A., Brooklyn College; M.S. D.A., Ph.D., University of Oregon (1974)
- GEORGIA BAKER**, Associate Professor of Theatre Arts  
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- CHANDLER BARBOUR**, Professor of Education, Chairperson of Elementary Education  
B.S., Washington State College; M.Ed., University of Maine;  
Ed.D., Wayne State University (1970)
- SAM BARONE**, Dean, School of Business and Economics;  
Professor, Economics (1985) B.S., M.S., Ph.D., University of Illinois.
- CHRISTOPHER E. BARTLETT**, Associate Professor of Art and Gallery Director  
Art. Cert. Ed., St. Paul's College, England; B.Ed. (hons) Bristol University, England; M.F.A., Syracuse University (1974)
- BARRY A. BASS**, Professor of Psychology  
B.A., Rutgers University; Ph.D., University of Tennessee (1974)
- M. TOM BASURAY**, Professor and Chair, Management (1986) B. Com., University of Calcutta, India; M.B.A., Ph. D., University of Oklahoma
- HARRY E BATES**, Associate Professor of Physics  
B.S., Auburn University; M.S. Rollins College;  
Ph.D. University of Florida (1977)
- JANE BATES**, Associate Professor of Art  
M. Ed., University of California, Los Angeles Ed. D., Arizona State University (1986)
- ROBERT D. BECKY**, Associate Professor of Mathematics  
A.B. Wittenberg University; M.Ed., Miami University (1959)
- CARL BEHM**, Associate Professor of English  
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- ERIC A. BELGRAD**, Professor of Political Science and Chairperson of Political Science  
B.A., M.A., Ph.D., Johns Hopkins University (1966)
- RUTH W. BELL**, Associate Professor and Chairperson of Nursing  
B.S., University of Rochester; M.S., University of Minnesota;  
D.N.Sc., Catholic University of America (1981)
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- KAREN BLAIR**, Instructor in General Education and Director of The Learning Center  
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- FLOYD A. BLANKENSHIP**, Associate Professor of Chemistry  
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- MARY E. BLANN**, Associate Professor of Physical Education  
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Ph.D., University of Maryland (1971)
- MARIE-LOUISE F. BLOUNT**, Associate Professor and Chairperson of Occupational Therapy  
B.S. in Education, Tufts University—Boston School of Occupational Therapy; A.M., Boston University (1976)
- ARNOLD BLUMBERG**, Professor of History  
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- FRANCES T. BOND**, Professor of Education and Associate Dean of Education  
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- PHYLLIS BOSLEY**, Associate Professor of Speech and Mass Communication  
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- JEAN M. BOUTON**, Associate Professor of Physical Education  
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- O. LESLIE BRADLEY**, Assistant Professor of Speech and Mass Communication  
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- HELENE BREAZEALE**, Associate Professor of Dance and Chairperson of Dance Department  
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- JOSEPH BRISCUSO**, Associate Professor of Music  
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- MARY M. BRIZZOLARA**, Professor of Psychology  
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- SAMUEL BRODBELT**, Professor of Education  
B.A., M.Ed., Ph.D., Ohio State University (1969)
- WILLIAM R. BROWN**, Associate Professor of Business Administration  
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- GILBERT A. BRUNGARDT**, Professor of Music and Dean of the College of Fine Arts and Communication  
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- OLIVE ANNE BURLEY**, Assistant Professor of English  
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- RICHARD N. BURNOR**, Assistant Professor, Philosophy (1986) Bucknell University; M. A., Ph.D., University of Arizona.
- LINDA G. BURTON**, Assistant Professor and Chair, Instructional Technology  
B.S., Radford College; M.Ed., University of Virginia (1968)

**ROBERT L. CARET**, Associate Professor of Chemistry and Dean of the College of Natural and Mathematical Sciences  
B.S., Suffolk University; Ph.D., University of New Hampshire (1974)  
**RAYMOND J. CASTALDI**, Associate Professor and Chair, Accounting and Finance  
B.S., Mt. St. Mary's College; C.P.A., District of Columbia;  
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**ANNETTE CHAPPELL**, Professor of English and Dean of the College of Liberal Arts  
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B.A., Jackson State University; M.L.S., University of Illinois;  
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**HENRY L. CHEN**, Associate Professor of Physics  
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**JOHN P. CHOLLET**, Assistant Professor of Mathematics  
B.A., University of California at Berkeley;  
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Ph.D., University of California at Santa Barbara (1983)  
**ROSE ANN CHRISTIAN**, Assistant Professor, Philosophy  
(1986) B.A., Wells; Ph.D., University of Pennsylvania.  
**JOHN CLARK**, Assistant Professor, Music  
(1984) B.A., California State College, Bakersfield;  
Ph.D., University of California, Santa Barbara.  
**JOHN E. CONNOLLY**, Assistant Professor of English  
B.A., University of Scranton; M.A., Ph.D., University of Pennsylvania (1970)  
**JAMES R. C. COOK III**, Assistant Professor of English  
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**CHARLOTTE COOK-FULLER**, Assistant Professor of Health Science  
B.S., Iowa State University of Science and Technology;  
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**JAMES P. COUGHLIN**, Instructor of Mathematics  
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**HELEN E. COULBY**, Associate Professor of Education and Chairperson of Early Childhood Education  
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**SARA COULTER**, Professor of English  
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**MARLENE C. COWAN**, Associate Professor of Speech and Mass Communication  
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**DONALD H. CRAVER**, Professor of English, Co-Chairman of English  
B.S., Wake Forest College; M.A., Duke University;  
M. Phil., Ph.D., The George Washington University (1962)  
**PHILLIP D. CREIGHTON**, Professor of Biology  
B.A., Tarkio College; M.A., Colorado State University;  
Ph.D., Colorado State University (1973)  
**RONALD W. CUBBISON**, Associate Professor of Art  
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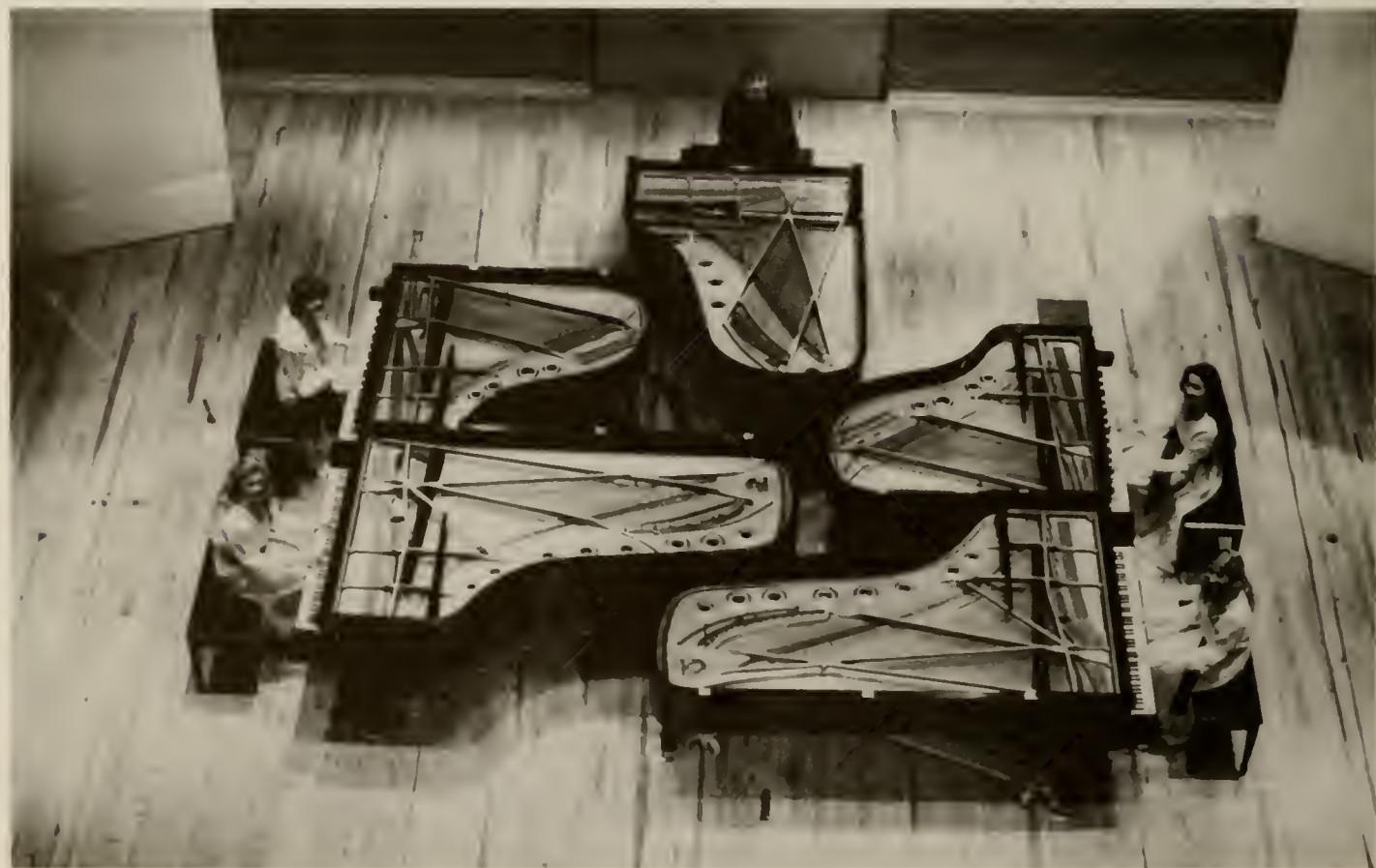
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